

Shire of Boddington

## Culvert Asset Management Plan

## Document Control

Rev No.	Date	Revision Details	Author	Reviewer	Approver
0.1	Aug-18	Initial Draft	VL		
0.2	Aug-18	Data sort	VL		

# Contents

<b>Contents</b> .....	<b>3</b>
<b>Executive Summary</b> .....	<b>4</b>
<b>Background and Objectives</b> .....	<b>5</b>
Purpose of this Asset Management Plan .....	5
Focus of this Asset Management Plan .....	5
Corporate Document Relationships .....	5
Time Period of the AMP and Next Review Date .....	5
<b>Service Levels</b> .....	<b>6</b>
Introduction .....	6
Service Level Performance .....	6
Stakeholder Key Service Attributes .....	6
Service Level Attributes .....	7
Service Level Targets and Performance .....	7
<b>Demand</b> .....	<b>8</b>
Historic Demand .....	8
Future Demand .....	8
Demand Management .....	9
<b>Risk Management</b> .....	<b>9</b>
<b>Lifecycle Management Plan</b> .....	<b>10</b>
Culverts' Condition .....	20
Data Confidence and Reliability .....	30
Lifecycle Management Strategies .....	31
<b>Financial</b> .....	<b>32</b>
Projected Expenditure Requirements .....	32
<b>Plan Improvement and Monitoring</b> .....	<b>33</b>
Performance Measures .....	33
Asset Consumption Ratio .....	33
Asset Sustainability Ratio .....	44
Asset Renewal Funding Ratio .....	44
Improvement Plan .....	45
Monitoring and Review Procedures .....	45

## Executive Summary

The Shire of Boddington owns and maintains 533 culverts that provide continuous vehicle access on the road network over natural water courses or depressions.

This plan excludes bridges asset type. There are 5 bridges owned by Local Authority in the Shire of Boddington. (Bridge No. 3084, 3085, 3086, 3090 and 4860.) Culverts on, over or under a road that have one or more spans of, or a diameter of, 1.8 metres or greater, or have a waterway area of 3m<sup>2</sup> or greater and includes all structural components (e.g. abutments, retaining walls, traffic safety barriers), and associated pathways, within the limits of the structure, but excludes approach embankments, require a bridge number.

This document is the Shire's Asset Management Plan (AMP) for its infrastructure assets. It outlines the activities that will be carried out over the next ten years to provide and maintain the portfolio. It also details the service levels (standard) the Shire will provide and the resources required to deliver them.

While the document is comprehensive, it is also evolving with the Shire's practice maturity. As such there are a number of actions that have been identified that will improve the AMP's accuracy over time. All readers of this AMP must understand its limitations and applied assumptions before acting on any information contained within it.

Overall, the Shire's culvert assets have significant value estimated at \$3.9 million. Evidence suggests that the general condition the Shire's culverts good overall condition but with some obvious deterioration evident, serviceability would be impaired very slightly. This position is supported with a culvert portfolio asset consumption ratio of 65% (target band is 50-75%). This aside, there are a lack of other key metrics that would allow the performance of culverts to be fully understood (e.g. accessibility, functionality, safety etc.) This alone may mean that culverts may not entirely meet the future needs of the Shire's community, and the Shire has responded with funding for ten year capital renewal program.

Looking forward, a number of key improvement actions have been identified that would enable the Shire to better manage its culvert asset portfolio. These have been listed within the Improvement Plan for future implementation.

## Background and Objectives

### Purpose of this Asset Management Plan

This document is an Asset Management Plan (AMP) for the Shire's culvert structures. The AMP documents shows how the Shire plans to manage these assets, to deliver services of a specified quality (service levels) and what the associated long term costs are.

### Focus of this Asset Management Plan

The AMP focuses on the following asset type portfolio.

Asset Class	No Of Asset	Current Replacement Cost
Culverts	533	\$3,921,285

**Table 1: Assets covered by Culverts AMP**

### Corporate Document Relationships

This AMP integrates with the other following Shire documents:

- = Strategic Community Plan
- = Corporate Business Plan
- = Long Term Financial Plan
- = Annual Budget.

### Time Period of the AMP and Next Review Date

The AMP covers a 10 year period and will be next reviewed by 1 July 2019.

# Service Levels

## Introduction

Service Levels describe the standard (e.g. quality) that the Shire provides from its culvert assets. These have been developed through the consideration of strategic and policy inputs and perceived customer needs and wants.

## Service Level Performance

Table 2 details the service level performance that the Shire provides.

Key Performance Indicator KPI	Performance	Tactic
Safety	Unknown	Monitoring performance
Quality	Unknown	Monitoring performance
Financial Sustainability	Unknown	Monitoring performance
Functionality	Unknown	Monitoring performance
Legislative compliance	Unknown	Monitoring performance
Accessibility	Unknown	Monitoring performance

**Table 2: Service Level Performance**

## Stakeholder Key Service Attributes

The Shire has considered what they value and expect from culvert assets. These needs and wants were captured and have been presented in the table below. Those considered of high importance (frequently occurring) and those which are needed, were then considered to form the basis of the AMP's Service Levels.

Stakeholder	Specific Needs/Wants	Need or Want?	Service Attribute
Shire (Council & Staff)	Culverts are managed in a financially sustainable manner.	Want	Financial Sustainability
	Culverts are maintained in a safe condition so as to minimise the Shire's and users' risk exposure	Need	Safety
	To ensure the culverts remains operational and support the services of the traffic intended	Need	Accessibility
	Continuous improvement in asset management practices	Want	Financial Sustainability
Ratepayers	Assets are managed cost effectively	Want	Affordability
	Shire provides a responsive maintenance service	Want	Responsiveness
Local Business	Roads are accessible	Need	Accessibility
	Shire provides a responsive maintenance service	Want	Responsiveness

Stakeholder	Specific Needs/Wants	Need or Want?	Service Attribute
Tourists & Visitors	Roads are accessible	Need	Accessibility
Emergency Services	Roads are accessible	Want	Accessibility
	Roads are safe	Need	Safety

**Table 3: Service Levels**

The perception of what the customer wants will be investigated for future updates of the asset management plan.

## Service Level Attributes

The following service attributes are either frequently occurring and/or needed. As such, they are considered for potential Service Levels.

- = Accessibility – Frequency: 4 and Needed
- = Functionality – Frequency: 1 and Needed
- = Safety – Frequency: 2 and Needed
- = Responsiveness - Frequency: 2 and Needed

## Service Level Targets and Performance

By considering the potential service attributes from the SCP and stakeholder key service attributes, a total of six KPIs have been selected. The following table outlines the KPIs used to monitor performance delivery.

KPI	Driver	Level of Service	Performance Measure	Target	Current	Data Confidence
Accessibility	Stakeholder attributes	Culverts are provided to in accordance to what road design require.	Percentage of culverts that remain operational throughout all seasons.	TBC	TBC	-
Financial Sustainability	SCP	Culverts are financially sustainable.	Percentage of culverts asset performance ratios that are within the target bands.	100%	TBC	-
Functionality	Stakeholder attributes	Culvert designed, constructed and maintained to meet current/ anticipated usage and capacity.	Percentage of users that are at least satisfied with the culverts that they use.	TBC	TBC	-
Safety	Stakeholder attributes and SCP	Culverts are managed and maintained to be safe.	Percentage of planned/recurrent maintenance tasks that occur as per their schedule(s) timeframe.	TBC	TBC	-
Responsiveness	SCP	Compliance with target maintenance response times.	Monthly works request reports measure timeframes.	TBC	TBC	-

**Table 4: Service Level Targets and Performance**

## Demand

This section summarises likely factors that may affect the demand for culvert based services over the life of the AMP. Full details of past and future demand factors are recorded in the General Guidance Notes.

### Historic Demand

A range of historical sources of service demand change have been considered. Their overall effect has been summarised as follows.

Driver Type	Effect	Demand Change
Population	Shire population up by 441 people (+31%) from 1,401 (2001) to 1,844 (2016).	Possible <b>Increase</b> in demand.
Demographic	Population increase in all demographic age bands (2001 – 2016) except 30-39. Median age has increased from 35 to 39 years (2001 – 2016).	<b>No change</b>
Recreation Participation	Participation rates continue to fall slightly year on year across the general population. Walking remains the most popular activity for recreation, followed by fitness/gym, jogging & running, swimming/diving and cycling/BMXing.	Possible <b>Increase</b> in demand.
Tourism	Tourist numbers in the 'golden outback' region grew from 1.5m (2012) to 2.1m (2017). This growth may have increased demand on the road network.	Possible <b>Increase</b> in demand.
Climate	Annual rainfall has fallen from approximately 730mm to 580mm per annum (1916 to 2017). Annual monthly mean maximum temperatures up from 29.2°C to 31.8°C (1935 to 2017). Address risks from climate changes a result.	Possible <b>Increase</b> in demand.

**Table 5: Historic Demand Drivers**

### Future Demand

Consideration was given to six possible future demand drivers (political, economic, social, technological, legal and environmental) that may influence demand on the provision of culvert based services.

Driver Type	Service Demand Change
Political	Negligible
Economic	<b>Increase</b> from higher energy costs, and potential catastrophic funding constraints if a local mine closes.
Social	<b>Increase</b> due to tourism and vandalism. <b>Changing needs</b> due to demographic and recreation trend changes.
Technological	Opportunity to <b>decrease</b> maintenance costs through implementation of emerging technologies.
Legal	<b>Increase</b> in compliance obligations.
Environmental	<b>Increase</b> in costs due to climate change and implementation of appropriate asset management strategies.

**Table 6: Future Demand Drivers**



## Demand Management

A review of past and future demand factors shows that council does not anticipate demand change has occurred, and will also likely occur into the future. Looking forward, the following initiatives/improvements are proposed to meet demand changes.

- = Improving asset knowledge so that the data accurately records the asset inventory
- = Monitor how assets are performing and when assets are not able to provide the required service levels.
- = Improving our efficiency in operating, maintaining, replacing existing and constructing new assets to optimise life cycle costs.

## Risk Management

A risk analysis of the current culvert asset management deficiencies identified by the AMP has been undertaken. Table 7 outlines the top identified risks.

Ref.	Risk	Level of Risk	Further Action
1	The Shire has no 'live' culvert AMP.	Moderate	Develop AMP
2	A planned maintenance schedule does not exist.	Moderate	Implement the Synergy Soft AM module.
4	Shire has no long-term capital works programme.	High	Develop a 10 year works programme.
7	Shire has no monitored AMP service levels.	Low	Monitor the service levels recorded within this AMP.

**Table 7: Major Culvert Asset Management Risks**

## Lifecycle Management Plan

The lifecycle management plan details how the Shire intends to manage and operate its culvert asset portfolio at the agreed service levels.

### Culvert Physical Parameters

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX001030	ADAM STREET	Pipe	4,390	2,849	59
RBCXX001058	ASHCROFT ROAD	Pipe	2,330	1,512	31
RBCXX001086	BOUNDARY ROAD	Pipe	4,820	3,128	64
RBCXX002086	BOUNDARY ROAD	Pipe	3,930	2,551	52
RBCXX003086	BOUNDARY ROAD	Pipe	4,920	3,193	66
RBCXX004086	BOUNDARY ROAD	Pipe	3,930	2,551	52
RBCXX001092	CASTLEROCK ROAD	Pipe	7,180	4,660	96
RBCXX002092	CASTLEROCK ROAD	Pipe	5,450	3,537	73
RBCXX003092	CASTLEROCK ROAD	Pipe	5,020	3,258	67
RBCXX004092	CASTLEROCK ROAD	Pipe	6,590	4,277	88
RBCXX005092	CASTLEROCK ROAD	Pipe	8,320	5,400	111
RBCXX006092	CASTLEROCK ROAD	Pipe	6,270	4,069	84
RBCXX001022	CHALK BROOK ROAD	Pipe	12,000	7,788	160
RBCXX002022	CHALK BROOK ROAD	Pipe	2,590	1,681	35
RBCXX003022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX004022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX005022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX006022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX007022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX008022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX009022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX010022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX011022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX012022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX013022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX014022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX015022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX016022	CHALK BROOK ROAD	Pipe	5,080	3,297	68
RBCXX017022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX018022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX019022	CHALK BROOK ROAD	Pipe	3,540	2,297	47
RBCXX020022	CHALK BROOK ROAD	Pipe	4,820	3,128	64
RBCXX021022	CHALK BROOK ROAD	Pipe	5,580	3,621	74
RBCXX022022	CHALK BROOK ROAD	Pipe	5,930	3,849	79
RBCXX023022	CHALK BROOK ROAD	Pipe	12,000	7,788	160
RBCXX001019	CHRISTIE STREET	Pipe	3,590	2,330	48
RBCXX001063	CLUB DRIVE	Pipe	4,660	3,024	62
RBCXX002063	CLUB DRIVE	Pipe	4,660	3,024	62
RBCXX003063	CLUB DRIVE	Pipe	4,660	3,024	62
RBCXX001081	COLIN STREET	Pipe	2,900	1,882	39
RBCXX002081	COLIN STREET	Pipe	5,750	3,732	77
RBCXX001102	CRANE RISE	Pipe	4,870	3,161	65
RBCXX002102	CRANE RISE	Pipe	4,870	3,161	65

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX001002	CROSSMAN DWARDA ROAD	Pipe	4,660	3,024	62
RBCXX002002	CROSSMAN DWARDA ROAD	Pipe	3,560	2,310	47
RBCXX003002	CROSSMAN DWARDA ROAD	Box	20,400	13,240	272
RBCXX004002	CROSSMAN DWARDA ROAD	Pipe	5,900	3,829	79
RBCXX005002	CROSSMAN DWARDA ROAD	Pipe	4,470	2,901	60
RBCXX006002	CROSSMAN DWARDA ROAD	Pipe	4,470	2,901	60
RBCXX007002	CROSSMAN DWARDA ROAD	Pipe	3,490	2,265	47
RBCXX008002	CROSSMAN DWARDA ROAD	Pipe	5,020	3,258	67
RBCXX009002	CROSSMAN DWARDA ROAD	Pipe	3,840	2,492	51
RBCXX010002	CROSSMAN DWARDA ROAD	Pipe	4,180	2,713	56
RBCXX011002	CROSSMAN DWARDA ROAD	Pipe	3,540	2,297	47
RBCXX012002	CROSSMAN DWARDA ROAD	Pipe	3,740	2,427	50
RBCXX013002	CROSSMAN DWARDA ROAD	Pipe	3,370	2,187	45
RBCXX001001	CROSSMAN ROAD	Pipe	33,600	25,200	420
RBCXX002001	CROSSMAN ROAD	Box	18,500	17,390	197
RBCXX003001	CROSSMAN ROAD	Box	28,000	26,320	298
RBCXX004001	CROSSMAN ROAD	Box	15,700	5,338	293
RBCXX005001	CROSSMAN ROAD	Pipe	27,600	20,700	345
RBCXX006001	CROSSMAN ROAD	Pipe	5,070	4,315	58
RBCXX007001	CROSSMAN ROAD	Box	16,200	12,150	203
RBCXX008001	CROSSMAN ROAD	Box	10,400	6,750	139
RBCXX009001	CROSSMAN ROAD	Box	26,200	14,148	374
RBCXX010001	CROSSMAN ROAD	Box	18,500	12,007	247
RBCXX011001	CROSSMAN ROAD	Box	8,120	5,270	108
RBCXX012001	CROSSMAN ROAD	Pipe	92,000	49,680	1314
RBCXX013001	CROSSMAN ROAD	Box	31,300	20,314	417
RBCXX014001	CROSSMAN ROAD	Pipe	6,000	4,500	75
RBCXX015001	CROSSMAN ROAD	Box	6,820	4,426	91
RBCXX016001	CROSSMAN ROAD	Pipe	5,570	4,740	64
RBCXX017001	CROSSMAN ROAD	Pipe	6,270	5,336	72
RBCXX018001	CROSSMAN ROAD	Pipe	12,000	10,212	138
RBCXX019001	CROSSMAN ROAD	Pipe	7,100	6,674	76
RBCXX020001	CROSSMAN ROAD	Pipe	10,800	7,009	144
RBCXX021001	CROSSMAN ROAD	Pipe	5,510	4,689	63
RBCXX022001	CROSSMAN ROAD	Box	16,900	12,675	211
RBCXX023001	CROSSMAN ROAD	Pipe	9,130	4,930	130
RBCXX024001	CROSSMAN ROAD	Pipe	8,770	5,692	117
RBCXX025001	CROSSMAN ROAD	Pipe	5,510	4,133	69
RBCXX026001	CROSSMAN ROAD	Pipe	5,900	5,021	68
RBCXX029001	CROSSMAN ROAD	Pipe	4,660	3,024	62
RBCXX030001	CROSSMAN ROAD	Pipe	4,940	3,705	62
RBCXX031001	CROSSMAN ROAD	Pipe	5,410	4,058	68
RBCXX032001	CROSSMAN ROAD	Pipe	10,300	7,725	129
RBCXX033001	CROSSMAN ROAD	Pipe	6,500	4,875	81
RBCXX034001	CROSSMAN ROAD	Pipe	13,700	8,891	183
RBCXX001012	DAYS ROAD	Pipe	3,470	2,252	46
RBCXX002012	DAYS ROAD	Pipe	3,560	2,310	47
RBCXX003012	DAYS ROAD	Pipe	3,420	2,220	46
RBCXX004012	DAYS ROAD	Pipe	2,900	1,882	39
RBCXX005012	DAYS ROAD	Pipe	2,380	1,545	32
RBCXX006012	DAYS ROAD	Pipe	3,470	2,252	46
RBCXX007012	DAYS ROAD	Pipe	3,470	2,252	46
RBCXX008012	DAYS ROAD	Pipe	3,270	2,122	44

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX009012	DAYS ROAD	Pipe	2,380	1,545	32
RBCXX010012	DAYS ROAD	Pipe	3,590	2,330	48
RBCXX011012	DAYS ROAD	Pipe	3,540	2,297	47
RBCXX012012	DAYS ROAD	Pipe	6,390	4,147	85
RBCXX013012	DAYS ROAD	Pipe	6,320	4,102	84
RBCXX014012	DAYS ROAD	Pipe	6,320	4,102	84
RBCXX015012	DAYS ROAD	Pipe	6,320	4,102	84
RBCXX016012	DAYS ROAD	Pipe	6,950	4,511	93
RBCXX001114	DAYS ROAD B	Pipe	2,460	1,597	33
RBCXX002114	DAYS ROAD B	Pipe	2,460	1,597	33
RBCXX003114	DAYS ROAD B	Pipe	7,390	4,796	99
RBCXX001094	FAIRWAY PLACE	Pipe	4,280	2,778	57
RBCXX002094	FAIRWAY PLACE	Pipe	6,960	4,517	93
RBCXX003094	FAIRWAY PLACE	Pipe	4,470	2,901	60
RBCXX004094	FAIRWAY PLACE	Pipe	7,460	4,842	99
RBCXX005094	FAIRWAY PLACE	Pipe	7,460	4,842	99
RBCXX006094	FAIRWAY PLACE	Pipe	4,720	3,063	63
RBCXX001015	FARMERS AVENUE	Pipe	9,980	6,477	133
RBCXX002015	FARMERS AVENUE	Pipe	4,660	3,024	62
RBCXX003015	FARMERS AVENUE	Pipe	4,040	2,622	54
RBCXX004015	FARMERS AVENUE	Pipe	4,040	2,622	54
RBCXX005015	FARMERS AVENUE	Pipe	4,180	2,713	56
RBCXX006015	FARMERS AVENUE	Pipe	4,180	2,713	56
RBCXX007015	FARMERS AVENUE	Pipe	4,180	2,713	56
RBCXX008015	FARMERS AVENUE	Pipe	4,180	2,713	56
RBCXX009015	FARMERS AVENUE	Pipe	5,240	3,401	70
RBCXX010015	FARMERS AVENUE	Pipe	6,610	4,290	88
RBCXX011015	FARMERS AVENUE	Pipe	15,500	10,060	207
RBCXX001014	FLETCHER ROAD	Pipe	3,470	2,252	46
RBCXX002014	FLETCHER ROAD	Pipe	3,470	2,252	46
RBCXX003014	FLETCHER ROAD	Pipe	2,460	1,597	33
RBCXX004014	FLETCHER ROAD	Pipe	2,560	1,661	34
RBCXX005014	FLETCHER ROAD	Pipe	7,500	4,868	100
RBCXX001110	FRASER RD	Pipe	3,330	2,161	44
RBCXX002110	FRASER RD	Pipe	3,330	2,161	44
RBCXX001093	GOLD MINE ROAD	Box	25,500	16,550	340
RBCXX002093	GOLD MINE ROAD	Box	33,900	22,001	452
RBCXX003093	GOLD MINE ROAD	Pipe	36,000	23,364	480
RBCXX004093	GOLD MINE ROAD	Pipe	6,270	4,069	84
RBCXX005093	GOLD MINE ROAD	Pipe	7,120	4,621	95
RBCXX006093	GOLD MINE ROAD	Pipe	5,580	3,621	74
RBCXX007093	GOLD MINE ROAD	Pipe	6,270	4,069	84
RBCXX008093	GOLD MINE ROAD	Pipe	6,950	4,511	93
RBCXX009093	GOLD MINE ROAD	Pipe	7,980	5,179	106
RBCXX010093	GOLD MINE ROAD	Pipe	21,400	13,889	285
RBCXX011093	GOLD MINE ROAD	Pipe	16,000	10,384	213
RBCXX012093	GOLD MINE ROAD	Pipe	16,000	10,384	213
RBCXX013093	GOLD MINE ROAD	Pipe	16,000	10,384	213
RBCXX001057	GREYS ROAD	Pipe	3,590	2,330	48
RBCXX001040	HAKA ROAD	Pipe	14,600	9,475	195

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX001003	HARVEY - QUINDANNING ROAD	Pipe	3,330	2,161	44
RBCXX002003	HARVEY - QUINDANNING ROAD	Pipe	3,330	2,161	44
RBCXX003003	HARVEY - QUINDANNING ROAD	Pipe	3,990	2,590	53
RBCXX004003	HARVEY - QUINDANNING ROAD	Pipe	3,370	2,187	45
RBCXX005003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX006003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	57
RBCXX007003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	57
RBCXX008003	HARVEY - QUINDANNING ROAD	Pipe	9,880	6,412	132
RBCXX009003	HARVEY - QUINDANNING ROAD	Pipe	4,390	2,849	59
RBCXX010003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX011003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX012003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX013003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX014003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	70
RBCXX015003	HARVEY - QUINDANNING ROAD	Pipe	5,800	3,764	77
RBCXX016003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	70
RBCXX017003	HARVEY - QUINDANNING ROAD	Pipe	4,940	3,206	66
RBCXX018003	HARVEY - QUINDANNING ROAD	Pipe	4,940	3,206	66
RBCXX019003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX020003	HARVEY - QUINDANNING ROAD	Pipe	4,480	2,908	60
RBCXX021003	HARVEY - QUINDANNING ROAD	Pipe	4,850	3,148	65
RBCXX022003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX023003	HARVEY - QUINDANNING ROAD	Pipe	4,610	2,992	61
RBCXX024003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	68
RBCXX025003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	57
RBCXX026003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	68
RBCXX027003	HARVEY - QUINDANNING ROAD	Pipe	4,990	3,239	67
RBCXX028003	HARVEY - QUINDANNING ROAD	Pipe	4,990	3,239	67
RBCXX029003	HARVEY - QUINDANNING ROAD	Pipe	4,750	3,083	63
RBCXX030003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	76
RBCXX031003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	70
RBCXX032003	HARVEY - QUINDANNING ROAD	Pipe	5,420	3,518	72
RBCXX033003	HARVEY - QUINDANNING ROAD	Pipe	11,300	7,334	151
RBCXX034003	HARVEY - QUINDANNING ROAD	Box	31,900	20,703	425
RBCXX035003	HARVEY - QUINDANNING ROAD	Pipe	22,600	14,667	301
RBCXX036003	HARVEY - QUINDANNING ROAD	Pipe	14,600	9,475	195
RBCXX037003	HARVEY - QUINDANNING ROAD	Pipe	18,900	12,266	252
RBCXX038003	HARVEY - QUINDANNING ROAD	Pipe	17,700	11,487	236
RBCXX039003	HARVEY - QUINDANNING ROAD	Pipe	16,500	10,709	220
RBCXX040003	HARVEY - QUINDANNING ROAD	Pipe	3,840	2,492	51
RBCXX041003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	50
RBCXX042003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	50
RBCXX043003	HARVEY - QUINDANNING ROAD	Pipe	3,440	2,233	46
RBCXX044003	HARVEY - QUINDANNING ROAD	Pipe	3,250	2,109	43
RBCXX045003	HARVEY - QUINDANNING ROAD	Pipe	3,250	2,109	43
RBCXX046003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	58
RBCXX047003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	58
RBCXX048003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	38
RBCXX049003	HARVEY - QUINDANNING ROAD	Pipe	3,290	2,135	44
RBCXX050003	HARVEY - QUINDANNING ROAD	Pipe	3,520	2,284	47
RBCXX051003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	38
RBCXX052003	HARVEY - QUINDANNING ROAD	Pipe	4,540	2,946	61
RBCXX053003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	50



Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX054003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	38
RBCXX055003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	67
RBCXX056003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	67
RBCXX057003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	58
RBCXX058003	HARVEY - QUINDANNING ROAD	Pipe	4,470	2,901	60
RBCXX059003	HARVEY - QUINDANNING ROAD	Pipe	4,400	2,856	59
RBCXX060003	HARVEY - QUINDANNING ROAD	Pipe	3,570	2,317	48
RBCXX061003	HARVEY - QUINDANNING ROAD	Pipe	4,770	3,096	64
RBCXX062003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	68
RBCXX063003	HARVEY - QUINDANNING ROAD	Pipe	492	319	7
RBCXX064003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	62
RBCXX065003	HARVEY - QUINDANNING ROAD	Pipe	5,410	3,511	72
RBCXX066003	HARVEY - QUINDANNING ROAD	Pipe	5,080	3,297	68
RBCXX067003	HARVEY - QUINDANNING ROAD	Pipe	5,080	3,297	68
RBCXX068003	HARVEY - QUINDANNING ROAD	Pipe	4,180	2,713	56
RBCXX069003	HARVEY - QUINDANNING ROAD	Pipe	5,410	3,511	72
RBCXX070003	HARVEY - QUINDANNING ROAD	Pipe	5,390	3,498	72
RBCXX071003	HARVEY - QUINDANNING ROAD	Pipe	6,740	4,374	90
RBCXX072003	HARVEY - QUINDANNING ROAD	Pipe	4,400	2,856	59
RBCXX073003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	69
RBCXX074003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	69
RBCXX075003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	69
RBCXX076003	HARVEY - QUINDANNING ROAD	Pipe	5,390	3,498	72
RBCXX077003	HARVEY - QUINDANNING ROAD	Pipe	5,310	3,446	71
RBCXX078003	HARVEY - QUINDANNING ROAD	Pipe	5,220	3,388	70
RBCXX079003	HARVEY - QUINDANNING ROAD	Pipe	4,820	3,128	64
RBCXX080003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	67
RBCXX081003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	69
RBCXX082003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	67
RBCXX083003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	69
RBCXX084003	HARVEY - QUINDANNING ROAD	Pipe	5,460	3,544	73
RBCXX085003	HARVEY - QUINDANNING ROAD	Pipe	5,510	3,576	73
RBCXX086003	HARVEY - QUINDANNING ROAD	Pipe	5,510	3,576	73
RBCXX087003	HARVEY - QUINDANNING ROAD	Pipe	4,970	3,226	66
RBCXX088003	HARVEY - QUINDANNING ROAD	Pipe	6,680	4,335	89
RBCXX089003	HARVEY - QUINDANNING ROAD	Pipe	4,720	3,063	63
RBCXX090003	HARVEY - QUINDANNING ROAD	Pipe	6,310	4,095	84
RBCXX091003	HARVEY - QUINDANNING ROAD	Pipe	4,670	3,031	62
RBCXX092003	HARVEY - QUINDANNING ROAD	Pipe	6,520	4,231	87
RBCXX093003	HARVEY - QUINDANNING ROAD	Pipe	4,770	3,096	64
RBCXX094003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	84
RBCXX095003	HARVEY - QUINDANNING ROAD	Pipe	3,590	2,330	48
RBCXX096003	HARVEY - QUINDANNING ROAD	Pipe	3,990	2,590	53
RBCXX097003	HARVEY - QUINDANNING ROAD	Pipe	4,840	3,141	65
RBCXX098003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	68
RBCXX099003	HARVEY - QUINDANNING ROAD	Pipe	7,520	4,880	100
RBCXX100003	HARVEY - QUINDANNING ROAD	Pipe	8,090	5,250	108
RBCXX101003	HARVEY - QUINDANNING ROAD	Pipe	7,520	4,880	100
RBCXX102003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	74
RBCXX103003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	74
RBCXX104003	HARVEY - QUINDANNING ROAD	Pipe	9,060	5,880	121
RBCXX105003	HARVEY - QUINDANNING ROAD	Pipe	7,980	5,179	106
RBCXX106003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	93

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX107003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	93
RBCXX108003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	93
RBCXX109003	HARVEY - QUINDANNING ROAD	Pipe	10,200	6,620	136
RBCXX110003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	74
RBCXX111003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	84
RBCXX112003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	84
RBCXX113003	HARVEY - QUINDANNING ROAD	Pipe	11,000	7,139	147
RBCXX114003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	76
RBCXX115003	HARVEY - QUINDANNING ROAD	Pipe	8,360	5,426	111
RBCXX116003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	76
RBCXX117003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	74
RBCXX118003	HARVEY - QUINDANNING ROAD	Pipe	8,280	5,374	110
RBCXX119003	HARVEY - QUINDANNING ROAD	Pipe	8,440	5,478	113
RBCXX120003	HARVEY - QUINDANNING ROAD	Pipe	6,780	4,400	90
RBCXX121003	HARVEY - QUINDANNING ROAD	Pipe	14,500	9,411	193
RBCXX122003	HARVEY - QUINDANNING ROAD	Pipe	13,300	8,632	177
RBCXX123003	HARVEY - QUINDANNING ROAD	Pipe	13,300	8,632	177
RBCXX124003	HARVEY - QUINDANNING ROAD	Pipe	14,800	9,605	197
RBCXX125003	HARVEY - QUINDANNING ROAD	Pipe	16,300	10,579	217
RBCXX126003	HARVEY - QUINDANNING ROAD	Pipe	12,500	8,113	167
RBCXX127003	HARVEY - QUINDANNING ROAD	Pipe	14,700	9,540	196
RBCXX128003	HARVEY - QUINDANNING ROAD	Pipe	14,700	9,540	196
RBCXX128004	HARVEY - QUINDANNING ROAD	Pipe	16,600	10,773	221
RBCXX001029	JOHNSTONE STREET	Pipe	9,200	5,971	123
RBCXX001097	KALIMNA WAY	Pipe	5,230	3,394	70
RBCXX002097	KALIMNA WAY	Pipe	5,700	3,699	76
RBCXX003097	KALIMNA WAY	Pipe	5,410	3,511	72
RBCXX004097	KALIMNA WAY	Pipe	5,410	3,511	72
RBCXX005097	KALIMNA WAY	Pipe	5,410	3,511	72
RBCXX006097	KALIMNA WAY	Pipe	5,410	3,511	72
APV - 2018 - 11	LOWER HOTHAM ROAD	Pipe	4,720	2,549	67
APV - 2018 - 12	LOWER HOTHAM ROAD	Pipe	5,180	3,362	69
APV - 2018 - 13	LOWER HOTHAM ROAD	Pipe	10,900	5,886	156
RBCXX001004	LOWER HOTHAM ROAD	Pipe	5,470	3,550	73
RBCXX002004	LOWER HOTHAM ROAD	Pipe	5,510	2,480	82
RBCXX003004	LOWER HOTHAM ROAD	Pipe	6,200	3,348	89
RBCXX004004	LOWER HOTHAM ROAD	Pipe	14,800	11,100	185
RBCXX005004	LOWER HOTHAM ROAD	Pipe	7,380	4,790	98
RBCXX006004	LOWER HOTHAM ROAD	Pipe	6,740	3,640	96
RBCXX007004	LOWER HOTHAM ROAD	Pipe	8,360	4,514	119
RBCXX008004	LOWER HOTHAM ROAD	Pipe	6,290	2,831	94
RBCXX009004	LOWER HOTHAM ROAD	Pipe	6,270	4,069	84
RBCXX010004	LOWER HOTHAM ROAD	Pipe	5,410	3,511	72
RBCXX011004	LOWER HOTHAM ROAD	Pipe	4,920	3,193	66
RBCXX012004	LOWER HOTHAM ROAD	Pipe	4,850	3,148	65
RBCXX013004	LOWER HOTHAM ROAD	Pipe	6,880	4,465	92
RBCXX014004	LOWER HOTHAM ROAD	Pipe	4,720	2,549	67
RBCXX015004	LOWER HOTHAM ROAD	Pipe	6,480	4,860	81
RBCXX016004	LOWER HOTHAM ROAD	Pipe	6,480	4,860	81
RBCXX017004	LOWER HOTHAM ROAD	Pipe	5,360	3,479	71
RBCXX018004	LOWER HOTHAM ROAD	Pipe	6,220	4,037	83
RBCXX019004	LOWER HOTHAM ROAD	Box	7,030	3,164	105
RBCXX020004	LOWER HOTHAM ROAD	Pipe	5,280	2,851	75

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX021004	LOWER HOTHAM ROAD	Pipe	5,410	3,511	72
RBCXX022004	LOWER HOTHAM ROAD	Pipe	5,800	4,350	73
RBCXX023004	LOWER HOTHAM ROAD	Box	11,700	5,265	175
RBCXX024004	LOWER HOTHAM ROAD	Pipe	5,180	2,331	77
RBCXX025004	LOWER HOTHAM ROAD	Pipe	7,600	5,700	95
RBCXX026004	LOWER HOTHAM ROAD	Pipe	360,000	194,400	5143
RBCXX027004	LOWER HOTHAM ROAD	Pipe	4,670	2,522	67
RBCXX028004	LOWER HOTHAM ROAD	Pipe	5,420	3,518	72
RBCXX029004	LOWER HOTHAM ROAD	Box	9,250	4,995	132
RBCXX030004	LOWER HOTHAM ROAD	Pipe	5,180	3,362	69
RBCXX031004	LOWER HOTHAM ROAD	Pipe	9,830	6,380	131
RBCXX032004	LOWER HOTHAM ROAD	Pipe	9,830	7,373	123
RBCXX033004	LOWER HOTHAM ROAD	Pipe	12,000	7,788	160
RBCXX034004	LOWER HOTHAM ROAD	Pipe	6,500	4,219	87
RBCXX035004	LOWER HOTHAM ROAD	Pipe	12,300	9,225	154
RBCXX036004	LOWER HOTHAM ROAD	Box	11,400	8,550	143
RBCXX037004	LOWER HOTHAM ROAD	Pipe	5,800	3,132	83
RBCXX001008	LUCEV ROAD	Pipe	2,900	1,882	39
RBCXX002008	LUCEV ROAD	Pipe	16,800	10,903	224
RBCXX003008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX004008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX005008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX006008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX007008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX008008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX009008	LUCEV ROAD	Pipe	4,180	2,713	56
RBCXX010008	LUCEV ROAD	Pipe	7,180	4,660	96
RBCXX001005	MARRADONG ROAD	Pipe	4,660	3,024	62
RBCXX002005	MARRADONG ROAD	Pipe	14,600	9,475	195
RBCXX003005	MARRADONG ROAD	Pipe	14,600	9,475	195
RBCXX004005	MARRADONG ROAD	Pipe	14,600	9,475	195
RBCXX005005	MARRADONG ROAD	Pipe	4,400	2,856	59
RBCXX006005	MARRADONG ROAD	Pipe	5,080	3,297	68
RBCXX007005	MARRADONG ROAD	Pipe	5,080	3,297	68
RBCXX008005	MARRADONG ROAD	Pipe	4,400	2,856	59
RBCXX009005	MARRADONG ROAD	Pipe	4,820	3,128	64
RBCXX010005	MARRADONG ROAD	Pipe	4,180	2,713	56
RBCXX011005	MARRADONG ROAD	Pipe	5,080	3,297	68
RBCXX012005	MARRADONG ROAD	Pipe	4,180	2,713	56
RBCXX013005	MARRADONG ROAD	Pipe	4,180	2,713	56
RBCXX014005	MARRADONG ROAD	Pipe	4,400	2,856	59
RBCXX015005	MARRADONG ROAD	Pipe	4,820	3,128	64
RBCXX016005	MARRADONG ROAD	Pipe	4,180	2,713	56
RBCXX017005	MARRADONG ROAD	Pipe	4,180	2,713	56
RBCXX018005	MARRADONG ROAD	Pipe	5,080	3,297	68
RBCXX019005	MARRADONG ROAD	Pipe	4,400	2,856	59
RBCXX001101	MISTLETOE VIEW	Pipe	4,920	3,193	66
RBCXX002101	MISTLETOE VIEW	Pipe	4,920	3,193	66
RBCXX003101	MISTLETOE VIEW	Pipe	5,700	3,699	76
RBCXX004101	MISTLETOE VIEW	Pipe	4,920	3,193	66
RBCXX005101	MISTLETOE VIEW	Pipe	4,920	3,193	66



Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX001107	MITCHELL CRESCENT	Pipe	6,270	4,069	84
RBCXX002107	MITCHELL CRESCENT	Pipe	6,270	4,069	84
RBCXX003107	MITCHELL CRESCENT	Pipe	6,270	4,069	84
RBCXX004107	MITCHELL CRESCENT	Pipe	25,100	16,290	335
RBCXX005107	MITCHELL CRESCENT	Pipe	6,000	3,894	80
RBCXX006107	MITCHELL CRESCENT	Pipe	6,000	3,894	80
APV - 2018 - 14	MOORAPULLING LANE	Pipe	2,790	1,811	37
APV - 2018 - 15	MOORAPULLING LANE	Pipe	9,020	5,854	120
RBCXX001018	MOORAPULLING LANE	Pipe	475	308	6
RBCXX002018	MOORAPULLING LANE	Pipe	4,660	3,024	62
RBCXX003018	MOORAPULLING LANE	Pipe	3,160	2,051	42
RBCXX004018	MOORAPULLING LANE	Pipe	518	336	7
RBCXX005018	MOORAPULLING LANE	Pipe	3,420	2,220	46
RBCXX006018	MOORAPULLING LANE	Pipe	3,480	2,259	46
RBCXX007018	MOORAPULLING LANE	Pipe	4,160	2,700	55
RBCXX001016	MORTS ROAD	Pipe	2,330	1,512	31
RBCXX002016	MORTS ROAD	Pipe	2,410	1,564	32
RBCXX001006	NEWMARKET ROAD	Pipe	4,660	3,024	62
RBCXX002006	NEWMARKET ROAD	Pipe	4,040	2,622	54
RBCXX003006	NEWMARKET ROAD	Pipe	4,660	3,024	62
RBCXX004006	NEWMARKET ROAD	Pipe	12,500	8,113	167
RBCXX005006	NEWMARKET ROAD	Pipe	15,600	10,124	208
RBCXX006006	NEWMARKET ROAD	Pipe	5,180	3,362	69
RBCXX007006	NEWMARKET ROAD	Pipe	4,180	2,713	56
RBCXX008006	NEWMARKET ROAD	Pipe	5,080	3,297	68
RBCXX009006	NEWMARKET ROAD	Pipe	4,400	2,856	59
RBCXX010006	NEWMARKET ROAD	Pipe	4,400	2,856	59
RBCXX011006	NEWMARKET ROAD	Pipe	3,590	2,330	48
RBCXX012006	NEWMARKET ROAD	Pipe	5,080	3,297	68
RBCXX013006	NEWMARKET ROAD	Pipe	4,400	2,856	59
RBCXX014006	NEWMARKET ROAD	Pipe	4,400	2,856	59
RBCXX015006	NEWMARKET ROAD	Pipe	8,700	5,646	116
RBCXX016006	NEWMARKET ROAD	Pipe	4,820	3,128	64
RBCXX017006	NEWMARKET ROAD	Pipe	4,400	2,856	59
RBCXX018006	NEWMARKET ROAD	Pipe	5,700	3,699	76
RBCXX019006	NEWMARKET ROAD	Pipe	5,390	3,498	72
RBCXX020006	NEWMARKET ROAD	Pipe	6,000	3,894	80
RBCXX021006	NEWMARKET ROAD	Pipe	6,000	3,894	80
RBCXX022006	NEWMARKET ROAD	Pipe	12,000	7,788	160
RBCXX023006	NEWMARKET ROAD	Pipe	5,700	3,699	76
RBCXX024006	NEWMARKET ROAD	Pipe	4,840	3,141	65
RBCXX025006	NEWMARKET ROAD	Pipe	5,580	3,621	74
RBCXX026006	NEWMARKET ROAD	Pipe	6,950	4,511	93
RBCXX027006	NEWMARKET ROAD	Pipe	10,400	6,750	139
RBCXX001034	NORTH EAST ROAD (F)	Pipe	5,020	3,258	67
RBCXX001020	OLD SOLDIERS ROAD	Pipe	3,470	2,252	46
RBCXX002020	OLD SOLDIERS ROAD	Pipe	14,600	9,475	195
RBCXX003020	OLD SOLDIERS ROAD	Pipe	14,600	9,475	195
RBCXX004020	OLD SOLDIERS ROAD	Pipe	4,820	3,128	64
RBCXX005020	OLD SOLDIERS ROAD	Pipe	5,180	3,362	69
RBCXX006020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX007020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX008020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX009020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX010020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX011020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX012020	OLD SOLDIERS ROAD	Pipe	4,180	2,713	56
RBCXX013020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	48
RBCXX014020	OLD SOLDIERS ROAD	Pipe	5,080	3,297	68
RBCXX001017	PAGE ROAD	Pipe	4,660	3,024	62
RBCXX002017	PAGE ROAD	Pipe	4,660	3,024	62
RBCXX003017	PAGE ROAD	Pipe	2,730	1,772	36
RBCXX004017	PAGE ROAD	Pipe	3,000	1,947	40
RBCXX005017	PAGE ROAD	Pipe	3,160	2,051	42
RBCXX006017	PAGE ROAD	Pipe	5,580	3,621	74
RBCXX001021	PALMER ROAD	Pipe	3,590	2,330	48
RBCXX002021	PALMER ROAD	Pipe	3,160	2,051	42
RBCXX003021	PALMER ROAD	Pipe	3,000	1,947	40
RBCXX001112	PARDALOTE HIEGHTS	Pipe	4,430	2,875	59
RBCXX002112	PARDALOTE HIEGHTS	Pipe	3,590	2,330	48
RBCXX001028	POLLARD ROAD	Pipe	6,610	4,290	88
RBCXX001010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX002010	QUINDANNING-DARKAN ROAD	Pipe	5,700	3,699	76
RBCXX003010	QUINDANNING-DARKAN ROAD	Pipe	5,080	3,297	68
RBCXX004010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX005010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX006010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX007010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX008010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	64
RBCXX009010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	74
RBCXX010010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	74
RBCXX011010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	74
RBCXX012010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	74
RBCXX013010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	74
RBCXX014010	QUINDANNING-DARKAN ROAD	Pipe	4,840	3,141	65
RBCXX015010	QUINDANNING-DARKAN ROAD	Pipe	12,000	7,788	160
RBCXX001047	RED HILL ROAD	Pipe	3,210	2,083	43
RBCXX002047	RED HILL ROAD	Pipe	4,520	2,933	60
RBCXX001043	RIVER ROAD	Pipe	3,800	2,466	51
RBCXX002043	RIVER ROAD	Pipe	4,660	3,024	62
RBCXX003043	RIVER ROAD	Pipe	4,040	2,622	54
RBCXX004043	RIVER ROAD	Pipe	4,040	2,622	54
RBCXX005043	RIVER ROAD	Pipe	2,730	1,772	36
RBCXX006043	RIVER ROAD	Pipe	5,800	3,764	77
RBCXX001013	ROBINS ROAD	Pipe	4,180	2,713	56
RBCXX002013	ROBINS ROAD	Pipe	4,180	2,713	56
RBCXX003013	ROBINS ROAD	Pipe	4,820	3,128	64
RBCXX001116	SHERRY CLOSE	Pipe	32,500	21,093	433
RBCXX002116	SHERRY CLOSE	Pipe	32,500	21,093	433
RBCXX001095	SIDING ROAD	Pipe	7,870	5,108	105
RBCXX002095	SIDING ROAD	Pipe	7,410	4,809	99
RBCXX003095	SIDING ROAD	Pipe	5,700	3,699	76
RBCXX001046	SLAVINS ROAD	Pipe	3,000	1,947	40
RBCXX002046	SLAVINS ROAD	Pipe	2,590	1,681	35
RBCXX003046	SLAVINS ROAD	Pipe	3,000	1,947	40
RBCXX004046	SLAVINS ROAD	Pipe	9,200	5,971	123

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX001007	SOUTH CROSSMAN ROAD	Pipe	4,280	2,778	57
RBCXX002007	SOUTH CROSSMAN ROAD	Pipe	4,040	2,622	54
RBCXX003007	SOUTH CROSSMAN ROAD	Pipe	4,040	2,622	54
RBCXX004007	SOUTH CROSSMAN ROAD	Pipe	4,660	3,024	62
RBCXX005007	SOUTH CROSSMAN ROAD	Pipe	4,940	3,206	66
RBCXX006007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX007007	SOUTH CROSSMAN ROAD	Pipe	3,930	2,551	52
RBCXX008007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX009007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX010007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	64
RBCXX011007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX012007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	64
RBCXX013007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX014007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX015007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX016007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX017007	SOUTH CROSSMAN ROAD	Pipe	3,980	2,583	53
RBCXX018007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX019007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX020007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX021007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX022007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX023007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX024007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX025007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX026007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX027007	SOUTH CROSSMAN ROAD	Pipe	7,050	4,575	94
RBCXX028007	SOUTH CROSSMAN ROAD	Pipe	5,410	3,511	72
RBCXX029007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX030007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX031007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX032007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	59
RBCXX033007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	56
RBCXX034007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	64
RBCXX035007	SOUTH CROSSMAN ROAD	Pipe	5,190	3,368	69
RBCXX036007	SOUTH CROSSMAN ROAD	Pipe	5,190	3,368	69
RBCXX037007	SOUTH CROSSMAN ROAD	Pipe	4,840	3,141	65
RBCXX038007	SOUTH CROSSMAN ROAD	Pipe	5,580	3,621	74
RBCXX039007	SOUTH CROSSMAN ROAD	Pipe	5,580	3,621	74
RBCXX001091	TWIN BRIDGES PLACE	Pipe	4,920	3,193	66
RBCXX002091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	62
RBCXX003091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	62
RBCXX004091	TWIN BRIDGES PLACE	Pipe	4,720	3,063	63
RBCXX005091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	62
RBCXX006091	TWIN BRIDGES PLACE	Pipe	5,690	3,693	76
RBCXX007091	TWIN BRIDGES PLACE	Pipe	7,120	4,621	95
RBCXX001009	TYLERS ROAD	Pipe	4,920	3,193	66
RBCXX002009	TYLERS ROAD	Pipe	4,820	3,128	64
RBCXX003009	TYLERS ROAD	Pipe	5,080	3,297	68
RBCXX004009	TYLERS ROAD	Pipe	4,820	3,128	64
RBCXX005009	TYLERS ROAD	Pipe	8,240	5,348	110
RBCXX006009	TYLERS ROAD	Pipe	5,080	3,297	68
RBCXX007009	TYLERS ROAD	Pipe	5,080	3,297	68

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Annual Depreciation Total \$
RBCXX008009	TYLERS ROAD	Pipe	4,180	2,713	56
RBCXX009009	TYLERS ROAD	Pipe	4,180	2,713	56
RBCXX010009	TYLERS ROAD	Pipe	4,180	2,713	56
RBCXX011009	TYLERS ROAD	Pipe	5,410	3,511	72
RBCXX012009	TYLERS ROAD	Pipe	6,270	4,069	84
RBCXX013009	TYLERS ROAD	Pipe	5,580	3,621	74
RBCXX014009	TYLERS ROAD	Pipe	12,000	7,788	160
RBCXX001031	WILLIAM STREET	Pipe	2,730	1,772	36
RBCXX002031	WILLIAM STREET	Pipe	8,410	5,458	112
RBCXX003031	WILLIAM STREET	Pipe	8,410	5,458	112
RBCXX004031	WILLIAM STREET	Pipe	3,000	1,947	40
RBCXX005031	WILLIAM STREET	Pipe	3,000	1,947	40
RBCXX006031	WILLIAM STREET	Pipe	4,820	3,128	64
RBCXX001100	WITHNELL LANE	Pipe	2,540	1,648	34
RBCXX002100	WITHNELL LANE	Pipe	2,540	1,648	34
RBCXX001039	WURAMING AVENUE	Pipe	5,080	3,297	68
RBCXX001067	ZILKO ROAD	Pipe	7,130	4,627	95
RBCXX002067	ZILKO ROAD	Pipe	12,800	8,307	171

**Table 8: Culverts Physical Parameters**

## Culverts' Condition

As at 30 June 2018, the Shire holds condition ratings for all the culverts derived from the last asset valuation. While the condition ratings provide some indication as to where renewal works may be required, the ratings are not sufficiently robust to produce a long term works programme. An improvement action to implement a programme of inspections across the portfolio has been listed.

The following section outlines the Shire's culvert assets as of 30 June 2018.

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Condition 0-10
RBCXX001030	ADAM STREET	Pipe	RCP 225	4,390	2.5	4
RBCXX001058	ASHCROFT ROAD	Pipe	RCP 300	2,330	2.5	4
RBCXX001086	BOUNDARY ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX002086	BOUNDARY ROAD	Pipe	RCP 375	3,930	2.5	4
RBCXX003086	BOUNDARY ROAD	Pipe	RCP 375	4,920	2.5	4
RBCXX004086	BOUNDARY ROAD	Pipe	RCP 375	3,930	2.5	4
RBCXX001092	CASTLEROCK ROAD	Pipe	RCP 375	7,180	2.5	4
RBCXX002092	CASTLEROCK ROAD	Pipe	RCP 500	5,450	2.5	4
RBCXX003092	CASTLEROCK ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX004092	CASTLEROCK ROAD	Pipe	RCP 375	6,590	2.5	4
RBCXX005092	CASTLEROCK ROAD	Pipe	RCP 600	8,320	2.5	4
RBCXX006092	CASTLEROCK ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX001022	CHALK BROOK ROAD	Pipe	RCP 1200	12,000	2.5	4
RBCXX002022	CHALK BROOK ROAD	Pipe	RCP 450	2,590	2.5	4
RBCXX003022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX004022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX005022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX006022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX007022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX008022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX009022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX010022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX011022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX012022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX013022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX014022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX015022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX016022	CHALK BROOK ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX017022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX018022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX019022	CHALK BROOK ROAD	Pipe	RCP 375	3,540	2.5	4
RBCXX020022	CHALK BROOK ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX021022	CHALK BROOK ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX022022	CHALK BROOK ROAD	Pipe	RCP 600	5,930	2.5	4
RBCXX023022	CHALK BROOK ROAD	Pipe	RCP 900	12,000	2.5	4
RBCXX001019	CHRISTIE STREET	Pipe	RCP 375	3,590	2.5	4
RBCXX001063	CLUB DRIVE	Pipe	RCP 300	4,660	2.5	4
RBCXX002063	CLUB DRIVE	Pipe	RCP 300	4,660	2.5	4
RBCXX003063	CLUB DRIVE	Pipe	RCP 300	4,660	2.5	4
RBCXX001081	COLIN STREET	Pipe	RCP 300	2,900	2.5	4
RBCXX002081	COLIN STREET	Pipe	RCP 375	5,750	2.5	4
RBCXX001102	CRANE RISE	Pipe	RCP 400	4,870	2.5	4
RBCXX002102	CRANE RISE	Pipe	RCP 400	4,870	2.5	4
RBCXX001002	CROSSMAN DWARDA ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX002002	CROSSMAN DWARDA ROAD	Pipe	RCP 300	3,560	2.5	4
RBCXX003002	CROSSMAN DWARDA ROAD	Box	RCBC 4000	20,400	2.5	4
RBCXX004002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	5,900	2.5	4
RBCXX005002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	4,470	2.5	4
RBCXX006002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	4,470	2.5	4
RBCXX007002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	3,490	2.5	4
RBCXX008002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX009002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	3,840	2.5	4
RBCXX010002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX011002	CROSSMAN DWARDA ROAD	Pipe	RCP 375	3,540	2.5	4
RBCXX012002	CROSSMAN DWARDA ROAD	Pipe	RCP 500	3,740	2.5	4
RBCXX013002	CROSSMAN DWARDA ROAD	Pipe	RCP 450	3,370	2.5	4
RBCXX001001	CROSSMAN ROAD	Pipe	RCP 700/1000	33,600	2	3
RBCXX002001	CROSSMAN ROAD	Box	RCBC 1200X600	18,500	1	1
RBCXX003001	CROSSMAN ROAD	Box	RCBC 1200X600	28,000	1	1
RBCXX004001	CROSSMAN ROAD	Box	TBC 1000X300	15,700	4	7
RBCXX005001	CROSSMAN ROAD	Pipe	RCP 750	27,600	2	3
RBCXX006001	CROSSMAN ROAD	Pipe	RCP 400	5,070	1.5	2
RBCXX007001	CROSSMAN ROAD	Box	RCBC 900X400	16,200	2	3
RBCXX008001	CROSSMAN ROAD	Box	RCBC 1200X400	10,400	2.5	4
RBCXX009001	CROSSMAN ROAD	Box	RCBC 1200X600	26,200	3	5
RBCXX010001	CROSSMAN ROAD	Box	RCBC 900X500	18,500	2.5	4
RBCXX011001	CROSSMAN ROAD	Box	RCBC 900X500	8,120	2.5	4
RBCXX012001	CROSSMAN ROAD	Pipe	RCP 1500	92,000	3	5
RBCXX013001	CROSSMAN ROAD	Box	RCBC 1200X400	31,300	2.5	4
RBCXX014001	CROSSMAN ROAD	Pipe	RCP 350	6,000	2	3
RBCXX015001	CROSSMAN ROAD	Box	RCBC 900X400	6,820	2.5	4
RBCXX016001	CROSSMAN ROAD	Pipe	RCP 400	5,570	1.5	2



Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX017001	CROSSMAN ROAD	Pipe	RCP 300	6,270	1.5	2
RBCXX018001	CROSSMAN ROAD	Pipe	RCP 600	12,000	1.5	2
RBCXX019001	CROSSMAN ROAD	Pipe	RCP 450	7,100	1	1
RBCXX020001	CROSSMAN ROAD	Pipe	RCP 350	10,800	2.5	4
RBCXX021001	CROSSMAN ROAD	Pipe	RCP 300	5,510	1.5	2
RBCXX022001	CROSSMAN ROAD	Box	RCBC 1200X600	16,900	2	3
RBCXX023001	CROSSMAN ROAD	Pipe	RCP 225	9,130	3	5
RBCXX024001	CROSSMAN ROAD	Pipe	RCP 225	8,770	2.5	4
RBCXX025001	CROSSMAN ROAD	Pipe	RCP 300	5,510	2	3
RBCXX026001	CROSSMAN ROAD	Pipe	RCP 375	5,900	1.5	2
RBCXX029001	CROSSMAN ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX030001	CROSSMAN ROAD	Pipe	RCP 300	4,940	2	3
RBCXX031001	CROSSMAN ROAD	Pipe	RCP 375	5,410	2	3
RBCXX032001	CROSSMAN ROAD	Pipe	RCP 300	10,300	2	3
RBCXX033001	CROSSMAN ROAD	Pipe	RCP 420	6,500	2	3
RBCXX034001	CROSSMAN ROAD	Pipe	RCP 1000	13,700	2.5	4
RBCXX001012	DAYS ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX002012	DAYS ROAD	Pipe	RCP 300	3,560	2.5	4
RBCXX003012	DAYS ROAD	Pipe	RCP 300	3,420	2.5	4
RBCXX004012	DAYS ROAD	Pipe	RCP 300	2,900	2.5	4
RBCXX005012	DAYS ROAD	Pipe	RCP 300	2,380	2.5	4
RBCXX006012	DAYS ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX007012	DAYS ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX008012	DAYS ROAD	Pipe	RCP 250	3,270	2.5	4
RBCXX009012	DAYS ROAD	Pipe	RCP 300	2,380	2.5	4
RBCXX010012	DAYS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX011012	DAYS ROAD	Pipe	RCP 375	3,540	2.5	4
RBCXX012012	DAYS ROAD	Pipe	RCP 375	6,390	2.5	4
RBCXX013012	DAYS ROAD	Pipe	RCP 450	6,320	2.5	4
RBCXX014012	DAYS ROAD	Pipe	RCP 450	6,320	2.5	4
RBCXX015012	DAYS ROAD	Pipe	RCP 450	6,320	2.5	4
RBCXX016012	DAYS ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX001114	DAYS ROAD B	Pipe	RCP 375	2,460	2.5	4
RBCXX002114	DAYS ROAD B	Pipe	RCP 375	2,460	2.5	4
RBCXX003114	DAYS ROAD B	Pipe	RCP 1000	7,390	2.5	4
RBCXX001094	FAIRWAY PLACE	Pipe	RCP 300	4,280	2.5	4
RBCXX002094	FAIRWAY PLACE	Pipe	RCP 400	6,960	2.5	4
RBCXX003094	FAIRWAY PLACE	Pipe	RCP 400	4,470	2.5	4
RBCXX004094	FAIRWAY PLACE	Pipe	RCP 400	7,460	2.5	4
RBCXX005094	FAIRWAY PLACE	Pipe	RCP 400	7,460	2.5	4
RBCXX006094	FAIRWAY PLACE	Pipe	RCP 400	4,720	2.5	4
RBCXX001015	FARMERS AVENUE	Pipe	RCP 300	9,980	2.5	4
RBCXX002015	FARMERS AVENUE	Pipe	RCP 300	4,660	2.5	4
RBCXX003015	FARMERS AVENUE	Pipe	RCP 300	4,040	2.5	4
RBCXX004015	FARMERS AVENUE	Pipe	RCP 300	4,040	2.5	4
RBCXX005015	FARMERS AVENUE	Pipe	RCP 375	4,180	2.5	4
RBCXX006015	FARMERS AVENUE	Pipe	RCP 375	4,180	2.5	4
RBCXX007015	FARMERS AVENUE	Pipe	RCP 375	4,180	2.5	4
RBCXX008015	FARMERS AVENUE	Pipe	RCP 375	4,180	2.5	4
RBCXX009015	FARMERS AVENUE	Pipe	RCP 600	5,240	2.5	4
RBCXX010015	FARMERS AVENUE	Pipe	RCP 600	6,610	2.5	4
RBCXX011015	FARMERS AVENUE	Pipe	RCP 900	15,500	2.5	4
RBCXX001014	FLETCHER ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX002014	FLETCHER ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX003014	FLETCHER ROAD	Pipe	RCP 375	2,460	2.5	4
RBCXX004014	FLETCHER ROAD	Pipe	RCP 600	2,560	2.5	4
RBCXX005014	FLETCHER ROAD	Pipe	RCP 900	7,500	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX001110	FRASER RD	Pipe	RCP 300	3,330	2.5	4
RBCXX002110	FRASER RD	Pipe	RCP 300	3,330	2.5	4
RBCXX001093	GOLD MINE ROAD	Box	RCBC 2400	25,500	2.5	4
RBCXX002093	GOLD MINE ROAD	Box	RCBC 3000	33,900	2.5	4
RBCXX003093	GOLD MINE ROAD	Pipe	RCP 1200	36,000	2.5	4
RBCXX004093	GOLD MINE ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX005093	GOLD MINE ROAD	Pipe	RCP 600	7,120	2.5	4
RBCXX006093	GOLD MINE ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX007093	GOLD MINE ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX008093	GOLD MINE ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX009093	GOLD MINE ROAD	Pipe	RCP 600	7,980	2.5	4
RBCXX010093	GOLD MINE ROAD	Pipe	RCP 1000	21,400	2.5	4
RBCXX011093	GOLD MINE ROAD	Pipe	RCP 900	16,000	2.5	4
RBCXX012093	GOLD MINE ROAD	Pipe	RCP 900	16,000	2.5	4
RBCXX013093	GOLD MINE ROAD	Pipe	RCP 900	16,000	2.5	4
RBCXX001057	GREYS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX001040	HAKA ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX001003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	3,330	2.5	4
RBCXX002003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	3,330	2.5	4
RBCXX003003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	3,990	2.5	4
RBCXX004003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	3,370	2.5	4
RBCXX005003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX006003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,280	2.5	4
RBCXX007003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,280	2.5	4
RBCXX008003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	9,880	2.5	4
RBCXX009003	HARVEY - QUINDANNING ROAD	Pipe	RCP 250	4,390	2.5	4
RBCXX010003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX011003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX012003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX013003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX014003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,230	2.5	4
RBCXX015003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,800	2.5	4
RBCXX016003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,230	2.5	4
RBCXX017003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,940	2.5	4
RBCXX018003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,940	2.5	4
RBCXX019003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX020003	HARVEY - QUINDANNING ROAD	Pipe	RCP 225	4,480	2.5	4
RBCXX021003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,850	2.5	4
RBCXX022003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX023003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,610	2.5	4
RBCXX024003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,130	2.5	4
RBCXX025003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,280	2.5	4
RBCXX026003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,130	2.5	4
RBCXX027003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,990	2.5	4
RBCXX028003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,990	2.5	4
RBCXX029003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	4,750	2.5	4
RBCXX030003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,700	2.5	4
RBCXX031003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,230	2.5	4
RBCXX032003	HARVEY - QUINDANNING ROAD	Pipe	RCP 300	5,420	2.5	4
RBCXX033003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1200	11,300	2.5	4
RBCXX034003	HARVEY - QUINDANNING ROAD	Box	RCBC 6000	31,900	2.5	4
RBCXX035003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1500	22,600	2.5	4
RBCXX036003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX037003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1200	18,900	2.5	4
RBCXX038003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1050	17,700	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX039003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1200	16,500	2.5	4
RBCXX040003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,840	2.5	4
RBCXX041003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,740	2.5	4
RBCXX042003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,740	2.5	4
RBCXX043003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,440	2.5	4
RBCXX044003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,250	2.5	4
RBCXX045003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,250	2.5	4
RBCXX046003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,380	2.5	4
RBCXX047003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,380	2.5	4
RBCXX048003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	2,850	2.5	4
RBCXX049003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,290	2.5	4
RBCXX050003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	3,520	2.5	4
RBCXX051003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	2,850	2.5	4
RBCXX052003	HARVEY - QUINDANNING ROAD	Pipe	RCP 500	4,540	2.5	4
RBCXX053003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	3,740	2.5	4
RBCXX054003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	2,850	2.5	4
RBCXX055003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX056003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX057003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,380	2.5	4
RBCXX058003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,470	2.5	4
RBCXX059003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX060003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	3,570	2.5	4
RBCXX061003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	4,770	2.5	4
RBCXX062003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,130	2.5	4
RBCXX063003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	492	2.5	4
RBCXX064003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	4,660	2.5	4
RBCXX065003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX066003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX067003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX068003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX069003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX070003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,390	2.5	4
RBCXX071003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	6,740	2.5	4
RBCXX072003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX073003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX074003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX075003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX076003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,390	2.5	4
RBCXX077003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,310	2.5	4
RBCXX078003	HARVEY - QUINDANNING ROAD	Pipe	RCP 400	5,220	2.5	4
RBCXX079003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX080003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX081003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX082003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,020	2.5	4
RBCXX083003	HARVEY - QUINDANNING ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX084003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,460	2.5	4
RBCXX085003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,510	2.5	4
RBCXX086003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	5,510	2.5	4
RBCXX087003	HARVEY - QUINDANNING ROAD	Pipe	RCP 400	4,970	2.5	4
RBCXX088003	HARVEY - QUINDANNING ROAD	Pipe	RCP 500	6,680	2.5	4
RBCXX089003	HARVEY - QUINDANNING ROAD	Pipe	RCP 400	4,720	2.5	4
RBCXX090003	HARVEY - QUINDANNING ROAD	Pipe	RCP 400	6,310	2.5	4
RBCXX091003	HARVEY - QUINDANNING ROAD	Pipe	RCP 375	4,670	2.5	4
RBCXX092003	HARVEY - QUINDANNING ROAD	Pipe	RCP 500	6,520	2.5	4
RBCXX093003	HARVEY - QUINDANNING ROAD	Pipe	RCP 400	4,770	2.5	4



Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX094003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX095003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	3,590	2.5	4
RBCXX096003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	3,990	2.5	4
RBCXX097003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	4,840	2.5	4
RBCXX098003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,130	2.5	4
RBCXX099003	HARVEY - QUINDANNING ROAD	Pipe	RCP 700	7,520	2.5	4
RBCXX100003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	8,090	2.5	4
RBCXX101003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	7,520	2.5	4
RBCXX102003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX103003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX104003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	9,060	2.5	4
RBCXX105003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	7,980	2.5	4
RBCXX106003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX107003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX108003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX109003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	10,200	2.5	4
RBCXX110003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX111003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX112003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX113003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	11,000	2.5	4
RBCXX114003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,700	2.5	4
RBCXX115003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	8,360	2.5	4
RBCXX116003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,700	2.5	4
RBCXX117003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX118003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	8,280	2.5	4
RBCXX119003	HARVEY - QUINDANNING ROAD	Pipe	RCP 750	8,440	2.5	4
RBCXX120003	HARVEY - QUINDANNING ROAD	Pipe	RCP 600	6,780	2.5	4
RBCXX121003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1000	14,500	2.5	4
RBCXX122003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1000	13,300	2.5	4
RBCXX123003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1000	13,300	2.5	4
RBCXX124003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1000	14,800	2.5	4
RBCXX125003	HARVEY - QUINDANNING ROAD	Pipe	RCP 1000	16,300	2.5	4
RBCXX126003	HARVEY - QUINDANNING ROAD	Pipe	RCP 900	12,500	2.5	4
RBCXX127003	HARVEY - QUINDANNING ROAD	Pipe	RCP 900	14,700	2.5	4
RBCXX128003	HARVEY - QUINDANNING ROAD	Pipe	RCP 900	14,700	2.5	4
RBCXX128004	HARVEY - QUINDANNING ROAD	Pipe	RCP 900	16,600	2.5	4
RBCXX001029	JOHNSTONE STREET	Pipe	RCP 800	9,200	2.5	4
RBCXX001097	KALIMNA WAY	Pipe	RCP 300	5,230	2.5	4
RBCXX002097	KALIMNA WAY	Pipe	RCP 450	5,700	2.5	4
RBCXX003097	KALIMNA WAY	Pipe	RCP 375	5,410	2.5	4
RBCXX004097	KALIMNA WAY	Pipe	RCP 375	5,410	2.5	4
RBCXX005097	KALIMNA WAY	Pipe	RCP 375	5,410	2.5	4
RBCXX006097	KALIMNA WAY	Pipe	RCP 375	5,410	2.5	4
APV - 2018 - 11	LOWER HOTHAM ROAD	Pipe	RCP 375	4,720	3	5
APV - 2018 - 12	LOWER HOTHAM ROAD	Pipe	RCP 450	5,180	2.5	4
APV - 2018 - 13	LOWER HOTHAM ROAD	Pipe	RCP 400	10,900	3	5
RBCXX001004	LOWER HOTHAM ROAD	Pipe	RCP 600	5,470	2.5	4
RBCXX002004	LOWER HOTHAM ROAD	Pipe	RCP 375	5,510	3.5	6
RBCXX003004	LOWER HOTHAM ROAD	Pipe	RCP 375	6,200	3	5
RBCXX004004	LOWER HOTHAM ROAD	Pipe	RCP 1050	14,800	2	3
RBCXX005004	LOWER HOTHAM ROAD	Pipe	RCP 375	7,380	2.5	4
RBCXX006004	LOWER HOTHAM ROAD	Pipe	RCP 450	6,740	3	5
RBCXX007004	LOWER HOTHAM ROAD	Pipe	RCP 750	8,360	3	5
RBCXX008004	LOWER HOTHAM ROAD	Pipe	RCP 375	6,290	3.5	6
RBCXX009004	LOWER HOTHAM ROAD	Pipe	RCP 600	6,270	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX010004	LOWER HOTHAM ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX011004	LOWER HOTHAM ROAD	Pipe	RCP 375	4,920	2.5	4
RBCXX012004	LOWER HOTHAM ROAD	Pipe	RCP 300	4,850	2.5	4
RBCXX013004	LOWER HOTHAM ROAD	Pipe	RCP 375	6,880	2.5	4
RBCXX014004	LOWER HOTHAM ROAD	Pipe	RCP 375	4,720	3	5
RBCXX015004	LOWER HOTHAM ROAD	Pipe	RCP 450	6,480	2	3
RBCXX016004	LOWER HOTHAM ROAD	Pipe	RCP 450	6,480	2	3
RBCXX017004	LOWER HOTHAM ROAD	Pipe	RCP 375	5,360	2.5	4
RBCXX018004	LOWER HOTHAM ROAD	Pipe	RCP 450	6,220	2.5	4
RBCXX019004	LOWER HOTHAM ROAD	Box	RCBC 900X300	7,030	3.5	6
RBCXX020004	LOWER HOTHAM ROAD	Pipe	RCP 450	5,280	3	5
RBCXX021004	LOWER HOTHAM ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX022004	LOWER HOTHAM ROAD	Pipe	RCP 450	5,800	2	3
RBCXX023004	LOWER HOTHAM ROAD	Box	RCBC 1200X600	11,700	3.5	6
RBCXX024004	LOWER HOTHAM ROAD	Pipe	RCP 450	5,180	3.5	6
RBCXX025004	LOWER HOTHAM ROAD	Pipe	RCP 300	7,600	2	3
RBCXX026004	LOWER HOTHAM ROAD	Pipe	RCP 1200	360,000	3	5
RBCXX027004	LOWER HOTHAM ROAD	Pipe	RCP 375	4,670	3	5
RBCXX028004	LOWER HOTHAM ROAD	Pipe	RCP 300	5,420	2.5	4
RBCXX029004	LOWER HOTHAM ROAD	Box	RCBC 900X600	9,250	3	5
RBCXX030004	LOWER HOTHAM ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX031004	LOWER HOTHAM ROAD	Pipe	RCP 375	9,830	2.5	4
RBCXX032004	LOWER HOTHAM ROAD	Pipe	RCP 375	9,830	2	3
RBCXX033004	LOWER HOTHAM ROAD	Pipe	RCP 450	12,000	2.5	4
RBCXX034004	LOWER HOTHAM ROAD	Pipe	RCP 600	6,500	2.5	4
RBCXX035004	LOWER HOTHAM ROAD	Pipe	RCP 900	12,300	2	3
RBCXX036004	LOWER HOTHAM ROAD	Box	RCBC 1200X600	11,400	2	3
RBCXX037004	LOWER HOTHAM ROAD	Pipe	RCP 450	5,800	3	5
RBCXX001008	LUCEV ROAD	Pipe	RCP 300	2,900	2.5	4
RBCXX002008	LUCEV ROAD	Pipe	RCP 1200	16,800	2.5	4
RBCXX003008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX004008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX005008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX006008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX007008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX008008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX009008	LUCEV ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX010008	LUCEV ROAD	Pipe	RCP 375	7,180	2.5	4
RBCXX001005	MARRADONG ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX002005	MARRADONG ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX003005	MARRADONG ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX004005	MARRADONG ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX005005	MARRADONG ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX006005	MARRADONG ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX007005	MARRADONG ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX008005	MARRADONG ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX009005	MARRADONG ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX010005	MARRADONG ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX011005	MARRADONG ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX012005	MARRADONG ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX013005	MARRADONG ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX014005	MARRADONG ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX015005	MARRADONG ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX016005	MARRADONG ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX017005	MARRADONG ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX018005	MARRADONG ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX019005	MARRADONG ROAD	Pipe	RCP 450	4,400	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX001101	MISTLETOE VIEW	Pipe	RCP 450	4,920	2.5	4
RBCXX002101	MISTLETOE VIEW	Pipe	RCP 450	4,920	2.5	4
RBCXX003101	MISTLETOE VIEW	Pipe	RCP 450	5,700	2.5	4
RBCXX004101	MISTLETOE VIEW	Pipe	RCP 450	4,920	2.5	4
RBCXX005101	MISTLETOE VIEW	Pipe	RCP 450	4,920	2.5	4
RBCXX001107	MITCHELL CRESCENT	Pipe	RCP 300	6,270	2.5	4
RBCXX002107	MITCHELL CRESCENT	Pipe	RCP 300	6,270	2.5	4
RBCXX003107	MITCHELL CRESCENT	Pipe	RCP 300	6,270	2.5	4
RBCXX004107	MITCHELL CRESCENT	Pipe	RCP 1200	25,100	2.5	4
RBCXX005107	MITCHELL CRESCENT	Pipe	RCP 375	6,000	2.5	4
RBCXX006107	MITCHELL CRESCENT	Pipe	RCP 375	6,000	2.5	4
APV - 2018 - 14	MOORAPULLING LANE	Pipe	RCP 600	2,790	2.5	4
APV - 2018 - 15	MOORAPULLING LANE	Pipe	RCP 1000	9,020	2.5	4
RBCXX001018	MOORAPULLING LANE	Pipe	RCP 300	475	2.5	4
RBCXX002018	MOORAPULLING LANE	Pipe	RCP 300	4,660	2.5	4
RBCXX003018	MOORAPULLING LANE	Pipe	RCP 450	3,160	2.5	4
RBCXX004018	MOORAPULLING LANE	Pipe	RCP 450	518	2.5	4
RBCXX005018	MOORAPULLING LANE	Pipe	RCP 600	3,420	2.5	4
RBCXX006018	MOORAPULLING LANE	Pipe	RCP 600	3,480	2.5	4
RBCXX007018	MOORAPULLING LANE	Pipe	RCP 600	4,160	2.5	4
RBCXX001016	MORTS ROAD	Pipe	RCP 300	2,330	2.5	4
RBCXX002016	MORTS ROAD	Pipe	RCP 375	2,410	2.5	4
RBCXX001006	NEWMARKET ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX002006	NEWMARKET ROAD	Pipe	RCP 300	4,040	2.5	4
RBCXX003006	NEWMARKET ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX004006	NEWMARKET ROAD	Pipe	RCP 1200	12,500	2.5	4
RBCXX005006	NEWMARKET ROAD	Pipe	RCP 1200	15,600	2.5	4
RBCXX006006	NEWMARKET ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX007006	NEWMARKET ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX008006	NEWMARKET ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX009006	NEWMARKET ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX010006	NEWMARKET ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX011006	NEWMARKET ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX012006	NEWMARKET ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX013006	NEWMARKET ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX014006	NEWMARKET ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX015006	NEWMARKET ROAD	Pipe	RCP 375	8,700	2.5	4
RBCXX016006	NEWMARKET ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX017006	NEWMARKET ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX018006	NEWMARKET ROAD	Pipe	RCP 450	5,700	2.5	4
RBCXX019006	NEWMARKET ROAD	Pipe	RCP 450	5,390	2.5	4
RBCXX020006	NEWMARKET ROAD	Pipe	RCP 375	6,000	2.5	4
RBCXX021006	NEWMARKET ROAD	Pipe	RCP 375	6,000	2.5	4
RBCXX022006	NEWMARKET ROAD	Pipe	RCP 375	12,000	2.5	4
RBCXX023006	NEWMARKET ROAD	Pipe	RCP 600	5,700	2.5	4
RBCXX024006	NEWMARKET ROAD	Pipe	RCP 600	4,840	2.5	4
RBCXX025006	NEWMARKET ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX026006	NEWMARKET ROAD	Pipe	RCP 600	6,950	2.5	4
RBCXX027006	NEWMARKET ROAD	Pipe	RCP 900	10,400	2.5	4
RBCXX001034	NORTH EAST ROAD (F)	Pipe	RCP 400	5,020	2.5	4
RBCXX001020	OLD SOLDIERS ROAD	Pipe	RCP 300	3,470	2.5	4
RBCXX002020	OLD SOLDIERS ROAD	Pipe	RCP 1200	14,600	2.5	4
RBCXX003020	OLD SOLDIERS ROAD	Pipe	RCP 1200	14,600	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX004020	OLD SOLDIERS ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX005020	OLD SOLDIERS ROAD	Pipe	RCP 450	5,180	2.5	4
RBCXX006020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX007020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX008020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX009020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX010020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX011020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX012020	OLD SOLDIERS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX013020	OLD SOLDIERS ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX014020	OLD SOLDIERS ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX001017	PAGE ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX002017	PAGE ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX003017	PAGE ROAD	Pipe	RCP 225	2,730	2.5	4
RBCXX004017	PAGE ROAD	Pipe	RCP 375	3,000	2.5	4
RBCXX005017	PAGE ROAD	Pipe	RCP 450	3,160	2.5	4
RBCXX006017	PAGE ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX001021	PALMER ROAD	Pipe	RCP 375	3,590	2.5	4
RBCXX002021	PALMER ROAD	Pipe	RCP 450	3,160	2.5	4
RBCXX003021	PALMER ROAD	Pipe	RCP 375	3,000	2.5	4
RBCXX001112	PARDALOTE HIEGHTS	Pipe	RCP 375	4,430	2.5	4
RBCXX002112	PARDALOTE HIEGHTS	Pipe	RCP 375	3,590	2.5	4
RBCXX001028	POLLARD ROAD	Pipe	RCP 600	6,610	2.5	4
RBCXX001010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX002010	QUINDANNING-DARKAN ROAD	Pipe	RCP 450	5,700	2.5	4
RBCXX003010	QUINDANNING-DARKAN ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX004010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX005010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX006010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX007010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX008010	QUINDANNING-DARKAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX009010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX010010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX011010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX012010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX013010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX014010	QUINDANNING-DARKAN ROAD	Pipe	RCP 600	4,840	2.5	4
RBCXX015010	QUINDANNING-DARKAN ROAD	Pipe	RCP 900	12,000	2.5	4
RBCXX001047	RED HILL ROAD	Pipe	RCP 450	3,210	2.5	4
RBCXX002047	RED HILL ROAD	Pipe	RCP 375	4,520	2.5	4
RBCXX001043	RIVER ROAD	Pipe	RCP 300	3,800	2.5	4
RBCXX002043	RIVER ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX003043	RIVER ROAD	Pipe	RCP 300	4,040	2.5	4
RBCXX004043	RIVER ROAD	Pipe	RCP 300	4,040	2.5	4
RBCXX005043	RIVER ROAD	Pipe	RCP 225	2,730	2.5	4
RBCXX006043	RIVER ROAD	Pipe	RCP 450	5,800	2.5	4
RBCXX001013	ROBINS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX002013	ROBINS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX003013	ROBINS ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX001116	SHERRY CLOSE	Pipe	RCP 1000	32,500	2.5	4
RBCXX002116	SHERRY CLOSE	Pipe	RCP 1000	32,500	2.5	4
RBCXX001095	SIDING ROAD	Pipe	RCP 375	7,870	2.5	4
RBCXX002095	SIDING ROAD	Pipe	RCP 600	7,410	2.5	4
RBCXX003095	SIDING ROAD	Pipe	RCP 600	5,700	2.5	4

Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Conditon 0-10
RBCXX001046	SLAVINS ROAD	Pipe	RCP 375	3,000	2.5	4
RBCXX002046	SLAVINS ROAD	Pipe	RCP 450	2,590	2.5	4
RBCXX003046	SLAVINS ROAD	Pipe	RCP 375	3,000	2.5	4
RBCXX004046	SLAVINS ROAD	Pipe	RCP 700	9,200	2.5	4
RBCXX001007	SOUTH CROSSMAN ROAD	Pipe	RCP 300	4,280	2.5	4
RBCXX002007	SOUTH CROSSMAN ROAD	Pipe	RCP 300	4,040	2.5	4
RBCXX003007	SOUTH CROSSMAN ROAD	Pipe	RCP 300	4,040	2.5	4
RBCXX004007	SOUTH CROSSMAN ROAD	Pipe	RCP 300	4,660	2.5	4
RBCXX005007	SOUTH CROSSMAN ROAD	Pipe	RCP 300	4,940	2.5	4
RBCXX006007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX007007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	3,930	2.5	4
RBCXX008007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX009007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX010007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX011007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX012007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX013007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX014007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX015007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX016007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX017007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	3,980	2.5	4
RBCXX018007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX019007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX020007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX021007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX022007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX023007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX024007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX025007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX026007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX027007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	7,050	2.5	4
RBCXX028007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX029007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX030007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX031007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX032007	SOUTH CROSSMAN ROAD	Pipe	RCP 450	4,400	2.5	4
RBCXX033007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX034007	SOUTH CROSSMAN ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX035007	SOUTH CROSSMAN ROAD	Pipe	RCP 600	5,190	2.5	4
RBCXX036007	SOUTH CROSSMAN ROAD	Pipe	RCP 600	5,190	2.5	4
RBCXX037007	SOUTH CROSSMAN ROAD	Pipe	RCP 600	4,840	2.5	4
RBCXX038007	SOUTH CROSSMAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX039007	SOUTH CROSSMAN ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX001091	TWIN BRIDGES PLACE	Pipe	RCP 375	4,920	2.5	4
RBCXX002091	TWIN BRIDGES PLACE	Pipe	RCP 350	4,670	2.5	4
RBCXX003091	TWIN BRIDGES PLACE	Pipe	RCP 350	4,670	2.5	4
RBCXX004091	TWIN BRIDGES PLACE	Pipe	RCP 400	4,720	2.5	4
RBCXX005091	TWIN BRIDGES PLACE	Pipe	RCP 375	4,670	2.5	4
RBCXX006091	TWIN BRIDGES PLACE	Pipe	RCP 550	5,690	2.5	4
RBCXX007091	TWIN BRIDGES PLACE	Pipe	RCP 600	7,120	2.5	4



Asset ID	Asset Name	Asset Subtype	Component Type	Current Replacement Value \$	Consumption Score	Condition 0-10
RBCXX001009	TYLERS ROAD	Pipe	RCP 225	4,920	2.5	4
RBCXX002009	TYLERS ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX003009	TYLERS ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX004009	TYLERS ROAD	Pipe	RCP 375	4,820	2.5	4
RBCXX005009	TYLERS ROAD	Pipe	RCP 450	8,240	2.5	4
RBCXX006009	TYLERS ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX007009	TYLERS ROAD	Pipe	RCP 450	5,080	2.5	4
RBCXX008009	TYLERS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX009009	TYLERS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX010009	TYLERS ROAD	Pipe	RCP 375	4,180	2.5	4
RBCXX011009	TYLERS ROAD	Pipe	RCP 375	5,410	2.5	4
RBCXX012009	TYLERS ROAD	Pipe	RCP 600	6,270	2.5	4
RBCXX013009	TYLERS ROAD	Pipe	RCP 600	5,580	2.5	4
RBCXX014009	TYLERS ROAD	Pipe	RCP 900	12,000	2.5	4
RBCXX001031	WILLIAM STREET	Pipe	RCP 225	2,730	2.5	4
RBCXX002031	WILLIAM STREET	Pipe	RCP 1200	8,410	2.5	4
RBCXX003031	WILLIAM STREET	Pipe	RCP 1200	8,410	2.5	4
RBCXX004031	WILLIAM STREET	Pipe	RCP 375	3,000	2.5	4
RBCXX005031	WILLIAM STREET	Pipe	RCP 375	3,000	2.5	4
RBCXX006031	WILLIAM STREET	Pipe	RCP 375	4,820	2.5	4
RBCXX001100	WITHNELL LANE	Pipe	RCP 450	2,540	2.5	4
RBCXX002100	WITHNELL LANE	Pipe	RCP 450	2,540	2.5	4
RBCXX001039	WURAMING AVENUE	Pipe	RCP 450	5,080	2.5	4
RBCXX001067	ZILKO ROAD	Pipe	RCP 375	7,130	2.5	4
RBCXX002067	ZILKO ROAD	Pipe	RCP 900	12,800	2.5	4

Table 9: Culverts Condition

## Data Confidence and Reliability

Table 11 details the reliability and confidence levels of the current asset data the Shire holds. It is the Shire's intention to progress towards a position whereby data confidence levels for all areas are classified as either a 1 or 2.

Confidence Grade	Description	Accuracy
1 – Excellent	Accurate	100%
2 – Good	Minor inaccuracies	± 5%
3 – Average	50% estimated	± 20%
4 – Poor	Significant data estimated	± 30%
5 – Very Poor	All data estimated	± 40%

Table 10: Data Confidence Measures

Asset Type	Inventory	Condition	Valuation
Culverts	3	3	3

Table 11: Culvert Data Confidence Levels

## Lifecycle Management Strategies

### Maintenance Strategy

The Shire currently employs a mixture of reactive and ad-hoc planned maintenance practices. Typically, annual budgets are based on historical levels of expenditure with an applied inflation factor. The available level of budget determines the level of planned maintenance that occurs.

Our culvert network is poorly recorded how it is maintained. Adequate maintenance is necessary for the proper operation of the drainage system. The lack of maintenance is one of the most common causes of failure of drainage systems (and erosion and sediment controls). This may be attributed to reasons such as significant reduction in hydraulic or storage capacity (such as blockage by debris or sediment). Inspection, mowing channel clearing and repair, cleaning out culverts and repairs to protective treatments are just some of the maintenance operations that need to be safely undertaken over the life of the structure.

The recommendation would be to identifying their inspection and maintenance regimes on the basis of risk - primarily risk of culvert blockage and flooding and risk of asset failure through lack of maintenance. Smaller culverts to have a longer inspection process (3-5 years instead of yearly)

Looking forward, the Shire wishes to improve this practice by increasing the level of planned maintenance activity and linking schedules to annual budgets. The development of a formal culvert maintenance programme has been listed as an improvement action.

### Culvert AMP

This document that sets out the Shire's long term management tactics for Culvert assets.

### Service Level Agreements

The Shire generally has little by way of formal Service Level Agreements with community groups and road users. The development of a template agreement has been listed as an improvement action.

### Renewal Strategy

Culvert assets are periodically inspected to determine their condition, on a 0 (new/excellent) to 10 (very poor/failed) scale. However, past inspections have not necessarily formally recorded ratings for all components for example Roadside Furniture, Environment, Headwall Construction. An improvement action to address this has been listed. Condition results will be used to predict assets' potential year of renewal. Staff then reinspect these assets to determine the timing, scope and budget of any future renewal project. Projects are then listed on a long term works programme and reported within this AMP, any work on renewing culverts during road construction works would be regarded as Capital expenditure.

The renewal strategy in this plan is predominately providing for culvert renewal once the asset condition is 6 or greater, as is demonstrated in the culvert condition table, it is anticipated that the culverts will reach a condition 7 in the next 3 years. Culvert renewal will be evaluated on priority, hierarchy, economic and condition factors.

Ensure that all replaced culverts meet Main Roads minimum culvert sizes

- Pipe culvert size 375 mm nominal diameter and minimum box culvert size 1200 x 375 mm

### Strategic Goals

A significant high level asset data collection and condition assessment process was conducted in 2018 across all culvert assets. This provided comprehensive condition information for all culverts. It is recommended that Council focuses its capital spending on poor condition culverts graded at level 7 or higher.

### New Strategy

The need for new and/or upgraded assets (e.g. to meet a service deficiency) are identified from several potential sources. Each potential asset is investigated by staff and where valid, often prioritised against similar projects. Approved projects are then listed onto the works programme. At present, the Shire does not have a formal prioritisation framework for upgrade/new assets, where their 'strategic fit' against the Strategic Community Plan can be determined. An improvement action to consider this has been listed.

### Disposal Strategy

The Shire does not frequently dispose of culvert assets (this is where the asset is not replaced/renewed). Where a potential need is identified, then this is considered by staff, and in some cases, Council.

## Financial

This section contains the financial requirements resulting from all the information presented in this AMP.

### Projected Expenditure Requirements

Expense Type	Year 1 2018/19	Year 2 2019/20	Year 3 2020/21	Year 4 2021/22	Year 5 2022/23
Operations					
Maintenance					
Renewal	\$ 98,970	\$ 79,000	\$ 73,000	\$ 75,000	\$ 77,000
Upgrade					
New					
Disposal					
<b>Required Funds</b>	<b>\$ 98,970</b>	<b>\$ 79,000</b>	<b>\$ 73,000</b>	<b>\$ 75,000</b>	<b>\$ 77,000</b>

	Year 6 2023/24	Year 7 2024/25	Year 8 2025/26	Year 9 2026/27	Year 10 2027/28
Operations					
Maintenance					
Renewal	\$ 78,000	\$ 80,000	\$ 82,000	\$ 84,000	\$ 86,000
Upgrade					
New					
Disposal					
<b>Required Funds</b>	<b>\$ 78,000</b>	<b>\$ 80,000</b>	<b>\$ 82,000</b>	<b>\$ 84,000</b>	<b>\$ 86,000</b>

Table 12: Culvert Expenditure Requirements

Planned Renewal Expenditure over the next 10 years (Renewal/Upgrade) \$812,970



## Plan Improvement and Monitoring

This Section of the AMP outlines the degree to which it is an effective and integrated tool within the Shire. It also details the future tasks required to improve its accuracy and robustness.

### Performance Measures

The effectiveness of the AMP will be monitored by the performance of the three statutory ratios that the Shire reports on. The Shire’s current performance is recorded in Table 16.

### Asset Consumption Ratio

The ratio is a measure of the condition of the Shire’s physical assets, by comparing their condition based fair value (what they’re currently worth) against their current replacement cost (what their replacement asset is currently worth as new). The ratio highlights the aged condition of the portfolio and has a target band of between 50%-75%. Non-depreciating assets (e.g. land etc.) should be excluded from the calculation.

$$\text{Asset Consumption Ratio} = \frac{\text{Depreciated Replacement Cost (Fair Value) of Depreciable Culvert Assets}}{\text{Current Replacement Cost of Depreciable Culvert Assets}}$$

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX001030	ADAM STREET	Pipe	4,390	2,849	65%
RBCXX001058	ASHCROFT ROAD	Pipe	2,330	1,512	65%
RBCXX001086	BOUNDARY ROAD	Pipe	4,820	3,128	65%
RBCXX002086	BOUNDARY ROAD	Pipe	3,930	2,551	65%
RBCXX003086	BOUNDARY ROAD	Pipe	4,920	3,193	65%
RBCXX004086	BOUNDARY ROAD	Pipe	3,930	2,551	65%
RBCXX001092	CASTLEROCK ROAD	Pipe	7,180	4,660	65%
RBCXX002092	CASTLEROCK ROAD	Pipe	5,450	3,537	65%
RBCXX003092	CASTLEROCK ROAD	Pipe	5,020	3,258	65%
RBCXX004092	CASTLEROCK ROAD	Pipe	6,590	4,277	65%
RBCXX005092	CASTLEROCK ROAD	Pipe	8,320	5,400	65%
RBCXX006092	CASTLEROCK ROAD	Pipe	6,270	4,069	65%
RBCXX001022	CHALK BROOK ROAD	Pipe	12,000	7,788	65%
RBCXX002022	CHALK BROOK ROAD	Pipe	2,590	1,681	65%
RBCXX003022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX004022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX005022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX006022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX007022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX008022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX009022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX010022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX011022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX012022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX013022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX014022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX015022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX016022	CHALK BROOK ROAD	Pipe	5,080	3,297	65%
RBCXX017022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX018022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX019022	CHALK BROOK ROAD	Pipe	3,540	2,297	65%
RBCXX020022	CHALK BROOK ROAD	Pipe	4,820	3,128	65%
RBCXX021022	CHALK BROOK ROAD	Pipe	5,580	3,621	65%
RBCXX022022	CHALK BROOK ROAD	Pipe	5,930	3,849	65%
RBCXX023022	CHALK BROOK ROAD	Pipe	12,000	7,788	65%
RBCXX001019	CHRISTIE STREET	Pipe	3,590	2,330	65%
RBCXX001063	CLUB DRIVE	Pipe	4,660	3,024	65%
RBCXX002063	CLUB DRIVE	Pipe	4,660	3,024	65%
RBCXX003063	CLUB DRIVE	Pipe	4,660	3,024	65%
RBCXX001081	COLIN STREET	Pipe	2,900	1,882	65%
RBCXX002081	COLIN STREET	Pipe	5,750	3,732	65%
RBCXX001102	CRANE RISE	Pipe	4,870	3,161	65%
RBCXX002102	CRANE RISE	Pipe	4,870	3,161	65%
RBCXX001002	CROSSMAN DWARDA ROAD	Pipe	4,660	3,024	65%
RBCXX002002	CROSSMAN DWARDA ROAD	Pipe	3,560	2,310	65%
RBCXX003002	CROSSMAN DWARDA ROAD	Box	20,400	13,240	65%
RBCXX004002	CROSSMAN DWARDA ROAD	Pipe	5,900	3,829	65%
RBCXX005002	CROSSMAN DWARDA ROAD	Pipe	4,470	2,901	65%
RBCXX006002	CROSSMAN DWARDA ROAD	Pipe	4,470	2,901	65%
RBCXX007002	CROSSMAN DWARDA ROAD	Pipe	3,490	2,265	65%
RBCXX008002	CROSSMAN DWARDA ROAD	Pipe	5,020	3,258	65%
RBCXX009002	CROSSMAN DWARDA ROAD	Pipe	3,840	2,492	65%
RBCXX010002	CROSSMAN DWARDA ROAD	Pipe	4,180	2,713	65%
RBCXX011002	CROSSMAN DWARDA ROAD	Pipe	3,540	2,297	65%
RBCXX012002	CROSSMAN DWARDA ROAD	Pipe	3,740	2,427	65%
RBCXX013002	CROSSMAN DWARDA ROAD	Pipe	3,370	2,187	65%
RBCXX001001	CROSSMAN ROAD	Pipe	33,600	25,200	75%
RBCXX002001	CROSSMAN ROAD	Box	18,500	17,390	94%
RBCXX003001	CROSSMAN ROAD	Box	28,000	26,320	94%
RBCXX004001	CROSSMAN ROAD	Box	15,700	5,338	34%
RBCXX005001	CROSSMAN ROAD	Pipe	27,600	20,700	75%
RBCXX006001	CROSSMAN ROAD	Pipe	5,070	4,315	85%
RBCXX007001	CROSSMAN ROAD	Box	16,200	12,150	75%
RBCXX008001	CROSSMAN ROAD	Box	10,400	6,750	65%
RBCXX009001	CROSSMAN ROAD	Box	26,200	14,148	54%
RBCXX010001	CROSSMAN ROAD	Box	18,500	12,007	65%
RBCXX011001	CROSSMAN ROAD	Box	8,120	5,270	65%
RBCXX012001	CROSSMAN ROAD	Pipe	92,000	49,680	54%
RBCXX013001	CROSSMAN ROAD	Box	31,300	20,314	65%
RBCXX014001	CROSSMAN ROAD	Pipe	6,000	4,500	75%
RBCXX015001	CROSSMAN ROAD	Box	6,820	4,426	65%
RBCXX016001	CROSSMAN ROAD	Pipe	5,570	4,740	85%
RBCXX017001	CROSSMAN ROAD	Pipe	6,270	5,336	85%
RBCXX018001	CROSSMAN ROAD	Pipe	12,000	10,212	85%
RBCXX019001	CROSSMAN ROAD	Pipe	7,100	6,674	94%
RBCXX020001	CROSSMAN ROAD	Pipe	10,800	7,009	65%
RBCXX021001	CROSSMAN ROAD	Pipe	5,510	4,689	85%
RBCXX022001	CROSSMAN ROAD	Box	16,900	12,675	75%
RBCXX023001	CROSSMAN ROAD	Pipe	9,130	4,930	54%
RBCXX024001	CROSSMAN ROAD	Pipe	8,770	5,692	65%
RBCXX025001	CROSSMAN ROAD	Pipe	5,510	4,133	75%
RBCXX026001	CROSSMAN ROAD	Pipe	5,900	5,021	85%
RBCXX029001	CROSSMAN ROAD	Pipe	4,660	3,024	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX030001	CROSSMAN ROAD	Pipe	4,940	3,705	75%
RBCXX031001	CROSSMAN ROAD	Pipe	5,410	4,058	75%
RBCXX032001	CROSSMAN ROAD	Pipe	10,300	7,725	75%
RBCXX033001	CROSSMAN ROAD	Pipe	6,500	4,875	75%
RBCXX034001	CROSSMAN ROAD	Pipe	13,700	8,891	65%
RBCXX001012	DAYS ROAD	Pipe	3,470	2,252	65%
RBCXX002012	DAYS ROAD	Pipe	3,560	2,310	65%
RBCXX003012	DAYS ROAD	Pipe	3,420	2,220	65%
RBCXX004012	DAYS ROAD	Pipe	2,900	1,882	65%
RBCXX005012	DAYS ROAD	Pipe	2,380	1,545	65%
RBCXX006012	DAYS ROAD	Pipe	3,470	2,252	65%
RBCXX007012	DAYS ROAD	Pipe	3,470	2,252	65%
RBCXX008012	DAYS ROAD	Pipe	3,270	2,122	65%
RBCXX009012	DAYS ROAD	Pipe	2,380	1,545	65%
RBCXX010012	DAYS ROAD	Pipe	3,590	2,330	65%
RBCXX011012	DAYS ROAD	Pipe	3,540	2,297	65%
RBCXX012012	DAYS ROAD	Pipe	6,390	4,147	65%
RBCXX013012	DAYS ROAD	Pipe	6,320	4,102	65%
RBCXX014012	DAYS ROAD	Pipe	6,320	4,102	65%
RBCXX015012	DAYS ROAD	Pipe	6,320	4,102	65%
RBCXX016012	DAYS ROAD	Pipe	6,950	4,511	65%
RBCXX001114	DAYS ROAD B	Pipe	2,460	1,597	65%
RBCXX002114	DAYS ROAD B	Pipe	2,460	1,597	65%
RBCXX003114	DAYS ROAD B	Pipe	7,390	4,796	65%
RBCXX001094	FAIRWAY PLACE	Pipe	4,280	2,778	65%
RBCXX002094	FAIRWAY PLACE	Pipe	6,960	4,517	65%
RBCXX003094	FAIRWAY PLACE	Pipe	4,470	2,901	65%
RBCXX004094	FAIRWAY PLACE	Pipe	7,460	4,842	65%
RBCXX005094	FAIRWAY PLACE	Pipe	7,460	4,842	65%
RBCXX006094	FAIRWAY PLACE	Pipe	4,720	3,063	65%
RBCXX001015	FARMERS AVENUE	Pipe	9,980	6,477	65%
RBCXX002015	FARMERS AVENUE	Pipe	4,660	3,024	65%
RBCXX003015	FARMERS AVENUE	Pipe	4,040	2,622	65%
RBCXX004015	FARMERS AVENUE	Pipe	4,040	2,622	65%
RBCXX005015	FARMERS AVENUE	Pipe	4,180	2,713	65%
RBCXX006015	FARMERS AVENUE	Pipe	4,180	2,713	65%
RBCXX007015	FARMERS AVENUE	Pipe	4,180	2,713	65%
RBCXX008015	FARMERS AVENUE	Pipe	4,180	2,713	65%
RBCXX009015	FARMERS AVENUE	Pipe	5,240	3,401	65%
RBCXX010015	FARMERS AVENUE	Pipe	6,610	4,290	65%
RBCXX011015	FARMERS AVENUE	Pipe	15,500	10,060	65%
RBCXX001014	FLETCHER ROAD	Pipe	3,470	2,252	65%
RBCXX002014	FLETCHER ROAD	Pipe	3,470	2,252	65%
RBCXX003014	FLETCHER ROAD	Pipe	2,460	1,597	65%
RBCXX004014	FLETCHER ROAD	Pipe	2,560	1,661	65%
RBCXX005014	FLETCHER ROAD	Pipe	7,500	4,868	65%
RBCXX001110	FRASER RD	Pipe	3,330	2,161	65%
RBCXX002110	FRASER RD	Pipe	3,330	2,161	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX001093	GOLD MINE ROAD	Box	25,500	16,550	65%
RBCXX002093	GOLD MINE ROAD	Box	33,900	22,001	65%
RBCXX003093	GOLD MINE ROAD	Pipe	36,000	23,364	65%
RBCXX004093	GOLD MINE ROAD	Pipe	6,270	4,069	65%
RBCXX005093	GOLD MINE ROAD	Pipe	7,120	4,621	65%
RBCXX006093	GOLD MINE ROAD	Pipe	5,580	3,621	65%
RBCXX007093	GOLD MINE ROAD	Pipe	6,270	4,069	65%
RBCXX008093	GOLD MINE ROAD	Pipe	6,950	4,511	65%
RBCXX009093	GOLD MINE ROAD	Pipe	7,980	5,179	65%
RBCXX010093	GOLD MINE ROAD	Pipe	21,400	13,889	65%
RBCXX011093	GOLD MINE ROAD	Pipe	16,000	10,384	65%
RBCXX012093	GOLD MINE ROAD	Pipe	16,000	10,384	65%
RBCXX013093	GOLD MINE ROAD	Pipe	16,000	10,384	65%
RBCXX001057	GREYS ROAD	Pipe	3,590	2,330	65%
RBCXX001040	HAKEA ROAD	Pipe	14,600	9,475	65%
RBCXX001003	HARVEY - QUINDANNING ROAD	Pipe	3,330	2,161	65%
RBCXX002003	HARVEY - QUINDANNING ROAD	Pipe	3,330	2,161	65%
RBCXX003003	HARVEY - QUINDANNING ROAD	Pipe	3,990	2,590	65%
RBCXX004003	HARVEY - QUINDANNING ROAD	Pipe	3,370	2,187	65%
RBCXX005003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX006003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	65%
RBCXX007003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	65%
RBCXX008003	HARVEY - QUINDANNING ROAD	Pipe	9,880	6,412	65%
RBCXX009003	HARVEY - QUINDANNING ROAD	Pipe	4,390	2,849	65%
RBCXX010003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX011003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX012003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX013003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX014003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	65%
RBCXX015003	HARVEY - QUINDANNING ROAD	Pipe	5,800	3,764	65%
RBCXX016003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	65%
RBCXX017003	HARVEY - QUINDANNING ROAD	Pipe	4,940	3,206	65%
RBCXX018003	HARVEY - QUINDANNING ROAD	Pipe	4,940	3,206	65%
RBCXX019003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX020003	HARVEY - QUINDANNING ROAD	Pipe	4,480	2,908	65%
RBCXX021003	HARVEY - QUINDANNING ROAD	Pipe	4,850	3,148	65%
RBCXX022003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX023003	HARVEY - QUINDANNING ROAD	Pipe	4,610	2,992	65%
RBCXX024003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	65%
RBCXX025003	HARVEY - QUINDANNING ROAD	Pipe	4,280	2,778	65%
RBCXX026003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	65%
RBCXX027003	HARVEY - QUINDANNING ROAD	Pipe	4,990	3,239	65%
RBCXX028003	HARVEY - QUINDANNING ROAD	Pipe	4,990	3,239	65%
RBCXX029003	HARVEY - QUINDANNING ROAD	Pipe	4,750	3,083	65%
RBCXX030003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	65%
RBCXX031003	HARVEY - QUINDANNING ROAD	Pipe	5,230	3,394	65%
RBCXX032003	HARVEY - QUINDANNING ROAD	Pipe	5,420	3,518	65%
RBCXX033003	HARVEY - QUINDANNING ROAD	Pipe	11,300	7,334	65%



Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX034003	HARVEY - QUINDANNING ROAD	Box	31,900	20,703	65%
RBCXX035003	HARVEY - QUINDANNING ROAD	Pipe	22,600	14,667	65%
RBCXX036003	HARVEY - QUINDANNING ROAD	Pipe	14,600	9,475	65%
RBCXX037003	HARVEY - QUINDANNING ROAD	Pipe	18,900	12,266	65%
RBCXX038003	HARVEY - QUINDANNING ROAD	Pipe	17,700	11,487	65%
RBCXX039003	HARVEY - QUINDANNING ROAD	Pipe	16,500	10,709	65%
RBCXX040003	HARVEY - QUINDANNING ROAD	Pipe	3,840	2,492	65%
RBCXX041003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	65%
RBCXX042003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	65%
RBCXX043003	HARVEY - QUINDANNING ROAD	Pipe	3,440	2,233	65%
RBCXX044003	HARVEY - QUINDANNING ROAD	Pipe	3,250	2,109	65%
RBCXX045003	HARVEY - QUINDANNING ROAD	Pipe	3,250	2,109	65%
RBCXX046003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	65%
RBCXX047003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	65%
RBCXX048003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	65%
RBCXX049003	HARVEY - QUINDANNING ROAD	Pipe	3,290	2,135	65%
RBCXX050003	HARVEY - QUINDANNING ROAD	Pipe	3,520	2,284	65%
RBCXX051003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	65%
RBCXX052003	HARVEY - QUINDANNING ROAD	Pipe	4,540	2,946	65%
RBCXX053003	HARVEY - QUINDANNING ROAD	Pipe	3,740	2,427	65%
RBCXX054003	HARVEY - QUINDANNING ROAD	Pipe	2,850	1,850	65%
RBCXX055003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	65%
RBCXX056003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	65%
RBCXX057003	HARVEY - QUINDANNING ROAD	Pipe	4,380	2,843	65%
RBCXX058003	HARVEY - QUINDANNING ROAD	Pipe	4,470	2,901	65%
RBCXX059003	HARVEY - QUINDANNING ROAD	Pipe	4,400	2,856	65%
RBCXX060003	HARVEY - QUINDANNING ROAD	Pipe	3,570	2,317	65%
RBCXX061003	HARVEY - QUINDANNING ROAD	Pipe	4,770	3,096	65%
RBCXX062003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	65%
RBCXX063003	HARVEY - QUINDANNING ROAD	Pipe	492	319	65%
RBCXX064003	HARVEY - QUINDANNING ROAD	Pipe	4,660	3,024	65%
RBCXX065003	HARVEY - QUINDANNING ROAD	Pipe	5,410	3,511	65%
RBCXX066003	HARVEY - QUINDANNING ROAD	Pipe	5,080	3,297	65%
RBCXX067003	HARVEY - QUINDANNING ROAD	Pipe	5,080	3,297	65%
RBCXX068003	HARVEY - QUINDANNING ROAD	Pipe	4,180	2,713	65%
RBCXX069003	HARVEY - QUINDANNING ROAD	Pipe	5,410	3,511	65%
RBCXX070003	HARVEY - QUINDANNING ROAD	Pipe	5,390	3,498	65%
RBCXX071003	HARVEY - QUINDANNING ROAD	Pipe	6,740	4,374	65%
RBCXX072003	HARVEY - QUINDANNING ROAD	Pipe	4,400	2,856	65%
RBCXX073003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	65%
RBCXX074003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	65%
RBCXX075003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	65%
RBCXX076003	HARVEY - QUINDANNING ROAD	Pipe	5,390	3,498	65%
RBCXX077003	HARVEY - QUINDANNING ROAD	Pipe	5,310	3,446	65%
RBCXX078003	HARVEY - QUINDANNING ROAD	Pipe	5,220	3,388	65%
RBCXX079003	HARVEY - QUINDANNING ROAD	Pipe	4,820	3,128	65%
RBCXX080003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	65%
RBCXX081003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	65%
RBCXX082003	HARVEY - QUINDANNING ROAD	Pipe	5,020	3,258	65%
RBCXX083003	HARVEY - QUINDANNING ROAD	Pipe	5,180	3,362	65%
RBCXX084003	HARVEY - QUINDANNING ROAD	Pipe	5,460	3,544	65%
RBCXX085003	HARVEY - QUINDANNING ROAD	Pipe	5,510	3,576	65%
RBCXX086003	HARVEY - QUINDANNING ROAD	Pipe	5,510	3,576	65%
RBCXX087003	HARVEY - QUINDANNING ROAD	Pipe	4,970	3,226	65%
RBCXX088003	HARVEY - QUINDANNING ROAD	Pipe	6,680	4,335	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX089003	HARVEY - QUINDANNING ROAD	Pipe	4,720	3,063	65%
RBCXX090003	HARVEY - QUINDANNING ROAD	Pipe	6,310	4,095	65%
RBCXX091003	HARVEY - QUINDANNING ROAD	Pipe	4,670	3,031	65%
RBCXX092003	HARVEY - QUINDANNING ROAD	Pipe	6,520	4,231	65%
RBCXX093003	HARVEY - QUINDANNING ROAD	Pipe	4,770	3,096	65%
RBCXX094003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	65%
RBCXX095003	HARVEY - QUINDANNING ROAD	Pipe	3,590	2,330	65%
RBCXX096003	HARVEY - QUINDANNING ROAD	Pipe	3,990	2,590	65%
RBCXX097003	HARVEY - QUINDANNING ROAD	Pipe	4,840	3,141	65%
RBCXX098003	HARVEY - QUINDANNING ROAD	Pipe	5,130	3,329	65%
RBCXX099003	HARVEY - QUINDANNING ROAD	Pipe	7,520	4,880	65%
RBCXX100003	HARVEY - QUINDANNING ROAD	Pipe	8,090	5,250	65%
RBCXX101003	HARVEY - QUINDANNING ROAD	Pipe	7,520	4,880	65%
RBCXX102003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	65%
RBCXX103003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	65%
RBCXX104003	HARVEY - QUINDANNING ROAD	Pipe	9,060	5,880	65%
RBCXX105003	HARVEY - QUINDANNING ROAD	Pipe	7,980	5,179	65%
RBCXX106003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	65%
RBCXX107003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	65%
RBCXX108003	HARVEY - QUINDANNING ROAD	Pipe	6,950	4,511	65%
RBCXX109003	HARVEY - QUINDANNING ROAD	Pipe	10,200	6,620	65%
RBCXX110003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	65%
RBCXX111003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	65%
RBCXX112003	HARVEY - QUINDANNING ROAD	Pipe	6,270	4,069	65%
RBCXX113003	HARVEY - QUINDANNING ROAD	Pipe	11,000	7,139	65%
RBCXX114003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	65%
RBCXX115003	HARVEY - QUINDANNING ROAD	Pipe	8,360	5,426	65%
RBCXX116003	HARVEY - QUINDANNING ROAD	Pipe	5,700	3,699	65%
RBCXX117003	HARVEY - QUINDANNING ROAD	Pipe	5,580	3,621	65%
RBCXX118003	HARVEY - QUINDANNING ROAD	Pipe	8,280	5,374	65%
RBCXX119003	HARVEY - QUINDANNING ROAD	Pipe	8,440	5,478	65%
RBCXX120003	HARVEY - QUINDANNING ROAD	Pipe	6,780	4,400	65%
RBCXX121003	HARVEY - QUINDANNING ROAD	Pipe	14,500	9,411	65%
RBCXX122003	HARVEY - QUINDANNING ROAD	Pipe	13,300	8,632	65%
RBCXX123003	HARVEY - QUINDANNING ROAD	Pipe	13,300	8,632	65%
RBCXX124003	HARVEY - QUINDANNING ROAD	Pipe	14,800	9,605	65%
RBCXX125003	HARVEY - QUINDANNING ROAD	Pipe	16,300	10,579	65%
RBCXX126003	HARVEY - QUINDANNING ROAD	Pipe	12,500	8,113	65%
RBCXX127003	HARVEY - QUINDANNING ROAD	Pipe	14,700	9,540	65%
RBCXX128003	HARVEY - QUINDANNING ROAD	Pipe	14,700	9,540	65%
RBCXX128004	HARVEY - QUINDANNING ROAD	Pipe	16,600	10,773	65%
RBCXX001029	JOHNSTONE STREET	Pipe	9,200	5,971	65%
RBCXX001097	KALIMNA WAY	Pipe	5,230	3,394	65%
RBCXX002097	KALIMNA WAY	Pipe	5,700	3,699	65%
RBCXX003097	KALIMNA WAY	Pipe	5,410	3,511	65%
RBCXX004097	KALIMNA WAY	Pipe	5,410	3,511	65%
RBCXX005097	KALIMNA WAY	Pipe	5,410	3,511	65%
RBCXX006097	KALIMNA WAY	Pipe	5,410	3,511	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
APV - 2018 - 11	LOWER HOTHAM ROAD	Pipe	4,720	2,549	54%
APV - 2018 - 12	LOWER HOTHAM ROAD	Pipe	5,180	3,362	65%
APV - 2018 - 13	LOWER HOTHAM ROAD	Pipe	10,900	5,886	54%
RBCXX001004	LOWER HOTHAM ROAD	Pipe	5,470	3,550	65%
RBCXX002004	LOWER HOTHAM ROAD	Pipe	5,510	2,480	45%
RBCXX003004	LOWER HOTHAM ROAD	Pipe	6,200	3,348	54%
RBCXX004004	LOWER HOTHAM ROAD	Pipe	14,800	11,100	75%
RBCXX005004	LOWER HOTHAM ROAD	Pipe	7,380	4,790	65%
RBCXX006004	LOWER HOTHAM ROAD	Pipe	6,740	3,640	54%
RBCXX007004	LOWER HOTHAM ROAD	Pipe	8,360	4,514	54%
RBCXX008004	LOWER HOTHAM ROAD	Pipe	6,290	2,831	45%
RBCXX009004	LOWER HOTHAM ROAD	Pipe	6,270	4,069	65%
RBCXX010004	LOWER HOTHAM ROAD	Pipe	5,410	3,511	65%
RBCXX011004	LOWER HOTHAM ROAD	Pipe	4,920	3,193	65%
RBCXX012004	LOWER HOTHAM ROAD	Pipe	4,850	3,148	65%
RBCXX013004	LOWER HOTHAM ROAD	Pipe	6,880	4,465	65%
RBCXX014004	LOWER HOTHAM ROAD	Pipe	4,720	2,549	54%
RBCXX015004	LOWER HOTHAM ROAD	Pipe	6,480	4,860	75%
RBCXX016004	LOWER HOTHAM ROAD	Pipe	6,480	4,860	75%
RBCXX017004	LOWER HOTHAM ROAD	Pipe	5,360	3,479	65%
RBCXX018004	LOWER HOTHAM ROAD	Pipe	6,220	4,037	65%
RBCXX019004	LOWER HOTHAM ROAD	Box	7,030	3,164	45%
RBCXX020004	LOWER HOTHAM ROAD	Pipe	5,280	2,851	54%
RBCXX021004	LOWER HOTHAM ROAD	Pipe	5,410	3,511	65%
RBCXX022004	LOWER HOTHAM ROAD	Pipe	5,800	4,350	75%
RBCXX023004	LOWER HOTHAM ROAD	Box	11,700	5,265	45%
RBCXX024004	LOWER HOTHAM ROAD	Pipe	5,180	2,331	45%
RBCXX025004	LOWER HOTHAM ROAD	Pipe	7,600	5,700	75%
RBCXX026004	LOWER HOTHAM ROAD	Pipe	360,000	194,400	54%
RBCXX027004	LOWER HOTHAM ROAD	Pipe	4,670	2,522	54%
RBCXX028004	LOWER HOTHAM ROAD	Pipe	5,420	3,518	65%
RBCXX029004	LOWER HOTHAM ROAD	Box	9,250	4,995	54%
RBCXX030004	LOWER HOTHAM ROAD	Pipe	5,180	3,362	65%
RBCXX031004	LOWER HOTHAM ROAD	Pipe	9,830	6,380	65%
RBCXX032004	LOWER HOTHAM ROAD	Pipe	9,830	7,373	75%
RBCXX033004	LOWER HOTHAM ROAD	Pipe	12,000	7,788	65%
RBCXX034004	LOWER HOTHAM ROAD	Pipe	6,500	4,219	65%
RBCXX035004	LOWER HOTHAM ROAD	Pipe	12,300	9,225	75%
RBCXX036004	LOWER HOTHAM ROAD	Box	11,400	8,550	75%
RBCXX037004	LOWER HOTHAM ROAD	Pipe	5,800	3,132	54%
RBCXX001008	LUCEV ROAD	Pipe	2,900	1,882	65%
RBCXX002008	LUCEV ROAD	Pipe	16,800	10,903	65%
RBCXX003008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX004008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX005008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX006008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX007008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX008008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX009008	LUCEV ROAD	Pipe	4,180	2,713	65%
RBCXX010008	LUCEV ROAD	Pipe	7,180	4,660	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX001005	MARRADONG ROAD	Pipe	4,660	3,024	65%
RBCXX002005	MARRADONG ROAD	Pipe	14,600	9,475	65%
RBCXX003005	MARRADONG ROAD	Pipe	14,600	9,475	65%
RBCXX004005	MARRADONG ROAD	Pipe	14,600	9,475	65%
RBCXX005005	MARRADONG ROAD	Pipe	4,400	2,856	65%
RBCXX006005	MARRADONG ROAD	Pipe	5,080	3,297	65%
RBCXX007005	MARRADONG ROAD	Pipe	5,080	3,297	65%
RBCXX008005	MARRADONG ROAD	Pipe	4,400	2,856	65%
RBCXX009005	MARRADONG ROAD	Pipe	4,820	3,128	65%
RBCXX010005	MARRADONG ROAD	Pipe	4,180	2,713	65%
RBCXX011005	MARRADONG ROAD	Pipe	5,080	3,297	65%
RBCXX012005	MARRADONG ROAD	Pipe	4,180	2,713	65%
RBCXX013005	MARRADONG ROAD	Pipe	4,180	2,713	65%
RBCXX014005	MARRADONG ROAD	Pipe	4,400	2,856	65%
RBCXX015005	MARRADONG ROAD	Pipe	4,820	3,128	65%
RBCXX016005	MARRADONG ROAD	Pipe	4,180	2,713	65%
RBCXX017005	MARRADONG ROAD	Pipe	4,180	2,713	65%
RBCXX018005	MARRADONG ROAD	Pipe	5,080	3,297	65%
RBCXX019005	MARRADONG ROAD	Pipe	4,400	2,856	65%
RBCXX001101	MISTLETOE VIEW	Pipe	4,920	3,193	65%
RBCXX002101	MISTLETOE VIEW	Pipe	4,920	3,193	65%
RBCXX003101	MISTLETOE VIEW	Pipe	5,700	3,699	65%
RBCXX004101	MISTLETOE VIEW	Pipe	4,920	3,193	65%
RBCXX005101	MISTLETOE VIEW	Pipe	4,920	3,193	65%
RBCXX001107	MITCHELL CRESCENT	Pipe	6,270	4,069	65%
RBCXX002107	MITCHELL CRESCENT	Pipe	6,270	4,069	65%
RBCXX003107	MITCHELL CRESCENT	Pipe	6,270	4,069	65%
RBCXX004107	MITCHELL CRESCENT	Pipe	25,100	16,290	65%
RBCXX005107	MITCHELL CRESCENT	Pipe	6,000	3,894	65%
RBCXX006107	MITCHELL CRESCENT	Pipe	6,000	3,894	65%
APV - 2018 - 14	MOORAPULLING LANE	Pipe	2,790	1,811	65%
APV - 2018 - 15	MOORAPULLING LANE	Pipe	9,020	5,854	65%
RBCXX001018	MOORAPULLING LANE	Pipe	475	308	65%
RBCXX002018	MOORAPULLING LANE	Pipe	4,660	3,024	65%
RBCXX003018	MOORAPULLING LANE	Pipe	3,160	2,051	65%
RBCXX004018	MOORAPULLING LANE	Pipe	518	336	65%
RBCXX005018	MOORAPULLING LANE	Pipe	3,420	2,220	65%
RBCXX006018	MOORAPULLING LANE	Pipe	3,480	2,259	65%
RBCXX007018	MOORAPULLING LANE	Pipe	4,160	2,700	65%
RBCXX001016	MORTS ROAD	Pipe	2,330	1,512	65%
RBCXX002016	MORTS ROAD	Pipe	2,410	1,564	65%
RBCXX001006	NEWMARKET ROAD	Pipe	4,660	3,024	65%
RBCXX002006	NEWMARKET ROAD	Pipe	4,040	2,622	65%
RBCXX003006	NEWMARKET ROAD	Pipe	4,660	3,024	65%
RBCXX004006	NEWMARKET ROAD	Pipe	12,500	8,113	65%
RBCXX005006	NEWMARKET ROAD	Pipe	15,600	10,124	65%
RBCXX006006	NEWMARKET ROAD	Pipe	5,180	3,362	65%
RBCXX007006	NEWMARKET ROAD	Pipe	4,180	2,713	65%
RBCXX008006	NEWMARKET ROAD	Pipe	5,080	3,297	65%
RBCXX009006	NEWMARKET ROAD	Pipe	4,400	2,856	65%
RBCXX010006	NEWMARKET ROAD	Pipe	4,400	2,856	65%



Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX011006	NEWMARKET ROAD	Pipe	3,590	2,330	65%
RBCXX012006	NEWMARKET ROAD	Pipe	5,080	3,297	65%
RBCXX013006	NEWMARKET ROAD	Pipe	4,400	2,856	65%
RBCXX014006	NEWMARKET ROAD	Pipe	4,400	2,856	65%
RBCXX015006	NEWMARKET ROAD	Pipe	8,700	5,646	65%
RBCXX016006	NEWMARKET ROAD	Pipe	4,820	3,128	65%
RBCXX017006	NEWMARKET ROAD	Pipe	4,400	2,856	65%
RBCXX018006	NEWMARKET ROAD	Pipe	5,700	3,699	65%
RBCXX019006	NEWMARKET ROAD	Pipe	5,390	3,498	65%
RBCXX020006	NEWMARKET ROAD	Pipe	6,000	3,894	65%
RBCXX021006	NEWMARKET ROAD	Pipe	6,000	3,894	65%
RBCXX022006	NEWMARKET ROAD	Pipe	12,000	7,788	65%
RBCXX023006	NEWMARKET ROAD	Pipe	5,700	3,699	65%
RBCXX024006	NEWMARKET ROAD	Pipe	4,840	3,141	65%
RBCXX025006	NEWMARKET ROAD	Pipe	5,580	3,621	65%
RBCXX026006	NEWMARKET ROAD	Pipe	6,950	4,511	65%
RBCXX027006	NEWMARKET ROAD	Pipe	10,400	6,750	65%
RBCXX001034	NORTH EAST ROAD (F)	Pipe	5,020	3,258	65%
RBCXX001020	OLD SOLDIERS ROAD	Pipe	3,470	2,252	65%
RBCXX002020	OLD SOLDIERS ROAD	Pipe	14,600	9,475	65%
RBCXX003020	OLD SOLDIERS ROAD	Pipe	14,600	9,475	65%
RBCXX004020	OLD SOLDIERS ROAD	Pipe	4,820	3,128	65%
RBCXX005020	OLD SOLDIERS ROAD	Pipe	5,180	3,362	65%
RBCXX006020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX007020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX008020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX009020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX010020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX011020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX012020	OLD SOLDIERS ROAD	Pipe	4,180	2,713	65%
RBCXX013020	OLD SOLDIERS ROAD	Pipe	3,590	2,330	65%
RBCXX014020	OLD SOLDIERS ROAD	Pipe	5,080	3,297	65%
RBCXX001017	PAGE ROAD	Pipe	4,660	3,024	65%
RBCXX002017	PAGE ROAD	Pipe	4,660	3,024	65%
RBCXX003017	PAGE ROAD	Pipe	2,730	1,772	65%
RBCXX004017	PAGE ROAD	Pipe	3,000	1,947	65%
RBCXX005017	PAGE ROAD	Pipe	3,160	2,051	65%
RBCXX006017	PAGE ROAD	Pipe	5,580	3,621	65%
RBCXX001021	PALMER ROAD	Pipe	3,590	2,330	65%
RBCXX002021	PALMER ROAD	Pipe	3,160	2,051	65%
RBCXX003021	PALMER ROAD	Pipe	3,000	1,947	65%
RBCXX001112	PARDALOTE HIEGHTS	Pipe	4,430	2,875	65%
RBCXX002112	PARDALOTE HIEGHTS	Pipe	3,590	2,330	65%
RBCXX001028	POLLARD ROAD	Pipe	6,610	4,290	65%
RBCXX001010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%
RBCXX002010	QUINDANNING-DARKAN ROAD	Pipe	5,700	3,699	65%
RBCXX003010	QUINDANNING-DARKAN ROAD	Pipe	5,080	3,297	65%
RBCXX004010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%
RBCXX005010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%
RBCXX006010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX007010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%
RBCXX008010	QUINDANNING-DARKAN ROAD	Pipe	4,820	3,128	65%
RBCXX009010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	65%
RBCXX010010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	65%
RBCXX011010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	65%
RBCXX012010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	65%
RBCXX013010	QUINDANNING-DARKAN ROAD	Pipe	5,580	3,621	65%
RBCXX014010	QUINDANNING-DARKAN ROAD	Pipe	4,840	3,141	65%
RBCXX015010	QUINDANNING-DARKAN ROAD	Pipe	12,000	7,788	65%
RBCXX001047	RED HILL ROAD	Pipe	3,210	2,083	65%
RBCXX002047	RED HILL ROAD	Pipe	4,520	2,933	65%
RBCXX001043	RIVER ROAD	Pipe	3,800	2,466	65%
RBCXX002043	RIVER ROAD	Pipe	4,660	3,024	65%
RBCXX003043	RIVER ROAD	Pipe	4,040	2,622	65%
RBCXX004043	RIVER ROAD	Pipe	4,040	2,622	65%
RBCXX005043	RIVER ROAD	Pipe	2,730	1,772	65%
RBCXX006043	RIVER ROAD	Pipe	5,800	3,764	65%
RBCXX001013	ROBINS ROAD	Pipe	4,180	2,713	65%
RBCXX002013	ROBINS ROAD	Pipe	4,180	2,713	65%
RBCXX003013	ROBINS ROAD	Pipe	4,820	3,128	65%
RBCXX001116	SHERRY CLOSE	Pipe	32,500	21,093	65%
RBCXX002116	SHERRY CLOSE	Pipe	32,500	21,093	65%
RBCXX001095	SIDING ROAD	Pipe	7,870	5,108	65%
RBCXX002095	SIDING ROAD	Pipe	7,410	4,809	65%
RBCXX003095	SIDING ROAD	Pipe	5,700	3,699	65%
RBCXX001046	SLAVINS ROAD	Pipe	3,000	1,947	65%
RBCXX002046	SLAVINS ROAD	Pipe	2,590	1,681	65%
RBCXX003046	SLAVINS ROAD	Pipe	3,000	1,947	65%
RBCXX004046	SLAVINS ROAD	Pipe	9,200	5,971	65%
RBCXX001007	SOUTH CROSSMAN ROAD	Pipe	4,280	2,778	65%
RBCXX002007	SOUTH CROSSMAN ROAD	Pipe	4,040	2,622	65%
RBCXX003007	SOUTH CROSSMAN ROAD	Pipe	4,040	2,622	65%
RBCXX004007	SOUTH CROSSMAN ROAD	Pipe	4,660	3,024	65%
RBCXX005007	SOUTH CROSSMAN ROAD	Pipe	4,940	3,206	65%
RBCXX006007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX007007	SOUTH CROSSMAN ROAD	Pipe	3,930	2,551	65%
RBCXX008007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX009007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX010007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	65%
RBCXX011007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX012007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	65%
RBCXX013007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX014007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX015007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX016007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX017007	SOUTH CROSSMAN ROAD	Pipe	3,980	2,583	65%
RBCXX018007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX019007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX020007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%

Asset ID	Asset Name	Asset Subtype	Current Replacement Value \$	Fair Value \$	Asset Consumption Ratio (ACR)
RBCXX021007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX022007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX023007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX024007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX025007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX026007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX027007	SOUTH CROSSMAN ROAD	Pipe	7,050	4,575	65%
RBCXX028007	SOUTH CROSSMAN ROAD	Pipe	5,410	3,511	65%
RBCXX029007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX030007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX031007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX032007	SOUTH CROSSMAN ROAD	Pipe	4,400	2,856	65%
RBCXX033007	SOUTH CROSSMAN ROAD	Pipe	4,180	2,713	65%
RBCXX034007	SOUTH CROSSMAN ROAD	Pipe	4,820	3,128	65%
RBCXX035007	SOUTH CROSSMAN ROAD	Pipe	5,190	3,368	65%
RBCXX036007	SOUTH CROSSMAN ROAD	Pipe	5,190	3,368	65%
RBCXX037007	SOUTH CROSSMAN ROAD	Pipe	4,840	3,141	65%
RBCXX038007	SOUTH CROSSMAN ROAD	Pipe	5,580	3,621	65%
RBCXX039007	SOUTH CROSSMAN ROAD	Pipe	5,580	3,621	65%
RBCXX001091	TWIN BRIDGES PLACE	Pipe	4,920	3,193	65%
RBCXX002091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	65%
RBCXX003091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	65%
RBCXX004091	TWIN BRIDGES PLACE	Pipe	4,720	3,063	65%
RBCXX005091	TWIN BRIDGES PLACE	Pipe	4,670	3,031	65%
RBCXX006091	TWIN BRIDGES PLACE	Pipe	5,690	3,693	65%
RBCXX007091	TWIN BRIDGES PLACE	Pipe	7,120	4,621	65%
RBCXX001009	TYLERS ROAD	Pipe	4,920	3,193	65%
RBCXX002009	TYLERS ROAD	Pipe	4,820	3,128	65%
RBCXX003009	TYLERS ROAD	Pipe	5,080	3,297	65%
RBCXX004009	TYLERS ROAD	Pipe	4,820	3,128	65%
RBCXX005009	TYLERS ROAD	Pipe	8,240	5,348	65%
RBCXX006009	TYLERS ROAD	Pipe	5,080	3,297	65%
RBCXX007009	TYLERS ROAD	Pipe	5,080	3,297	65%
RBCXX008009	TYLERS ROAD	Pipe	4,180	2,713	65%
RBCXX009009	TYLERS ROAD	Pipe	4,180	2,713	65%
RBCXX010009	TYLERS ROAD	Pipe	4,180	2,713	65%
RBCXX011009	TYLERS ROAD	Pipe	5,410	3,511	65%
RBCXX012009	TYLERS ROAD	Pipe	6,270	4,069	65%
RBCXX013009	TYLERS ROAD	Pipe	5,580	3,621	65%
RBCXX014009	TYLERS ROAD	Pipe	12,000	7,788	65%
RBCXX001031	WILLIAM STREET	Pipe	2,730	1,772	65%
RBCXX002031	WILLIAM STREET	Pipe	8,410	5,458	65%
RBCXX003031	WILLIAM STREET	Pipe	8,410	5,458	65%
RBCXX004031	WILLIAM STREET	Pipe	3,000	1,947	65%
RBCXX005031	WILLIAM STREET	Pipe	3,000	1,947	65%
RBCXX006031	WILLIAM STREET	Pipe	4,820	3,128	65%
RBCXX001100	WITHNELL LANE	Pipe	2,540	1,648	65%
RBCXX002100	WITHNELL LANE	Pipe	2,540	1,648	65%
RBCXX001039	WURAMING AVENUE	Pipe	5,080	3,297	65%
RBCXX001067	ZILKO ROAD	Pipe	7,130	4,627	65%
RBCXX002067	ZILKO ROAD	Pipe	12,800	8,307	65%

Table 13: Culvert Assets Consumption Ratios

## Asset Sustainability Ratio

The ratio is a measure of the extent to which assets managed by the Shire are being replaced as they reach the end of their useful lives. The ratio is essentially past looking, and is based upon dividing the average annual depreciation expense of the culvert asset portfolio by the average annual renewal expenditure, for a number of past years (e.g. 3).

Asset	Expenditure	Renewal Expenditure			Asset Depreciation Expense (ADE)
		2015/16	2016/17	2017/18	
Culverts					\$ 52,560
Culverts	Culvert Maintenance	\$ -	\$ 4,419	\$ -	
Culverts	Culvert Renewal (CAPEX)	\$ -	\$ -	\$ -	
		\$ -	\$ 4,419	\$ -	\$ 52,560

**Table 14: Culvert Assets Sustainability Ratios**

$$\begin{aligned}
 \text{Asset Sustainability Ratio} &= \frac{\text{Culverts Asset Renewal Expenditure}}{\text{Culverts Asset Depreciation}} \\
 &= \frac{\$ 4,419}{\$ 52,560} \\
 &= 8\%
 \end{aligned}$$

## Asset Renewal Funding Ratio

The ratio is a measure as to whether the Shire has the financial capacity to fund asset renewal as and when it is required over the future 10 year period. The ratio is calculated by dividing the net present value of planned renewal expenditure over the next 10 years in the LTFP, by the net present value of planned renewal expenditure over the next 10 years in the AMP. The same net present value discount must be applied in both calculations.

The ratio will be produce after the next revision of the Town's Long Term Financial Plan.

18/19	19/20	20/21	21/22	22/23
Year 1	Year 2	Year 3	Year 4	Year 5
\$98,970	\$79,000	\$73,000	\$75,000	\$77,000

23/24	24/25	25/26	26/27	27/28
Year 6	Year 7	Year 8	Year 9	Year 10
\$78,000	\$80,000	\$82,000	\$84,000	\$86,000

**Table 15: Culverts planned renewal expenditure**

Planned Required Renewal Expenditure over the next 10 years \$812,970

Asset Renewal Funding Ratio =  $\frac{\text{NPV of LTFP Planned Renewal Expenditure over the next 10 years}}{\text{NPV of AMP Required Renewal Expenditure over the next 10 years}}$

$$= \frac{\$812,970}{\$575,517}$$

$$= 141\%$$

Year	Asset Consumption Ratio	Asset Sustainability Ratio	Asset Renewal Funding Ratio
2018/19	<b>65% (Above Target)</b>	<b>8%</b>	<b>141%</b>

Table 16: AMP Performance Measures

## Improvement Plan

The asset management improvement plan generated from this AMP is shown in Table 17.

Task No.	Task	Responsibility	Timeline
1	Complete the implementation of the Synergy Soft AM module.		
2	Update new assets when handed over to the council		
3	Identify future technologies that can facilitate more effective and cost-efficient asset management practices.		
4	Provision of detailed work program for renewal		
5	Monitor the service levels recorded within this AMP.		
6	Implement an ongoing programme of culvert condition inspections.		
7	Develop a culvert maintenance schedule, with associated budgets.		
8	Develop an upgrade/new project evaluation and prioritisation framework.		

Table 17: AMP Improvement Plan

## Monitoring and Review Procedures

This AMP will be reviewed during annual budget preparation and amended to recognise any changes in service level and/or resources available to provide those services as a result of the budget decision process.